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THE HINDU NEWSPAPER

08 JANUARY 2025

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1.	With coir, Kerala carpenter team recreates vessel of yore नारियल की रस्सी से, केरल के बढ़ई दल ने प्राचीन जहाज़ का पुनर्निर्माण किया
2.	BJP, Congress spar over Nehru's role in reconstruction of Somnath temple सोमनाथ मंदिर के पुनर्निर्माण में नेहरू की भूमिका पर भाजपा और कांग्रेस में टकराव
3.	QUIZ: Mercedonius and the Roman Calendar Reform

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With coir, Kerala carpenter team recreates vessel of yore

GS I: History

Mithosh Joseph
KOZHIKODE

A native shipwright's dream to craft a masterpiece for his country came to fruition when the Navy's pioneering "stitched" sailing vessel *INSV Kaundinya* started her maiden voyage from Porbandar to Oman on December 29, 2025.

Babu Sankaran, a 61-year-old carpenter from Vadakara in Kozhikode district, was the craftsman behind the vessel, built with the support of a team of 20 carpenters from Malabar.

"It was a dream come true when we got the call



Weaving a dream: Master craftsman Babu Sankaran at work on the vessel in Goa. At right, *INSV Kaundinya* embarking on her maiden voyage from Porbandar on December 29. SPECIAL ARRANGEMENT, ANI



from Navy officials to realise *Kaundinya*. The work began in December 2023, entirely using the traditional stitched-plank tech-

niques," he says.

He said the wooden planks used for the 19.6-metre-long ship were stitched together using co-

conut coir rope and sealed with natural resins, preserving the dexterity of the once-prevalent tradition along India's coasts and

across the Indian Ocean.

Mr. Sankaran, who had been part of six such projects in different parts of India and abroad, said the entire team camped at a shipyard in Goa for the project, supervised by Navy officers. The team finished it in 16 months.

According to Navy sources, the project was undertaken through a tripartite memorandum of understanding between the Ministry of Culture, the Indian Navy, and Hodi Innovations, as part of India's efforts to revive indigenous knowledge systems and to highlight its historic role as a maritime

nation. The vessel, inducted as an Indian Naval Sailing Vessel (INSV) into service on May 21, 2025, is named after legendary mariner Kaundinya who is believed to have sailed from India to Southeast Asia in the ancient times.

According to the craftsmen, the vessel incorporated several culturally significant features. Her sails display motifs of the mythical two-headed *Gandabherunda* bird and the sun. Her bow bears a sculpted *Simha Yali*, a mythical creature with a lion's head and a symbolic Harappan style stone anchor at the deck, they said.

With coir, Kerala carpenter team recreates vessel of yore

नारियल की रस्सी से, केरल के बढ़ई दल ने प्राचीन जहाज़ का पुनर्निर्माण किया

- A native shipwright's dream to craft a masterpiece for his country came to fruition when the Navy's pioneering "stitched" sailing vessel *INSV Kaundinya* started her maiden voyage from **Porbandar to Oman** on **December 29, 2025**.
- **Babu Sankaran, a 61-year-old carpenter from Vadakara in Kozhikode district**, was the craftsman behind the vessel, built with the support of a team of **20 carpenters from Malabar**.
- "It was a dream come true when we got the call from **Navy officials** to realise **Kaundinya**. The work began in **December 2023**, **entirely using** the **traditional stitched-plank techniques**," he says.
- He said the **wooden planks used for the 19.6-metre-long ship** were stitched together using **coconut coir rope** and sealed with **natural resins**, preserving the dexterity of the once-prevalent tradition along **India's coasts** and across the **Indian Ocean**.
- According to **Navy sources**, the project was undertaken through a **tripartite memorandum of understanding** between the **Ministry of Culture**, the **Indian Navy**, and **Hodi Innovations**, as part of **India's efforts to revive indigenous knowledge systems** and to highlight its **historic role as a maritime nation**.
- The vessel, inducted as an **Indian Naval Sailing Vessel (INSV)** into service on **May 21, 2025**, is named after **legendary mariner Kaundinya** who is believed to have sailed from **India to Southeast Asia** in the **ancient times**.
 - Her sails display motifs of the mythical **two-headed Gandabherunda bird** and the **sun**.
- Her bow bears a sculpted **Simha Yali, a mythical creature with a lion's head and a symbolic Harappan style stone anchor** at the deck, they said.



BJP, Congress spar over Nehru's role in reconstruction of Somnath temple

GS I: History

The Hindu Bureau
NEW DELHI

The Bharatiya Janata Party and the Congress on Wednesday engaged in a sharp war of words over the role of India's first Prime Minister Jawaharlal Nehru in the reconstruction and inauguration of the Somnath temple. The ruling party accused Nehru of "appeasement politics", and the Opposition rejected the charge as being based on "lies and half-truths".

At a press conference, BJP MP and spokesperson Sudhanshu Trivedi said the former Prime Minister was not merely a political leader but a symbol of an ideology. "It is necessary today to understand how truly terrifying and horrifying that ideology was for India, and how a massive veil was drawn over its true face," he said.

Refers to 1951 letter

Referring to a letter written by Nehru in April 1951 to then Pakistan Prime Minister Liaquat Ali Khan, Mr. Trivedi said the former Prime Minister addressed him as "My Dear Nawabzada", and stated that what



War of words: A file photo of the Somnath temple located in Gujarat. VIJAY SONEJI

was happening at the Somnath temple was "wrong" and there should be no malicious propaganda about it. He quoted the letter as saying that claims about temple doors being brought back from Afghanistan were completely false.

The BJP leader pointed out a publication by the previous Congress government – L.S. Bakshi's book on Maharaja Ranjit Singh – which states that after conquering Kabul, Maharaja Ranjit Singh had included a condition in a treaty that

the doors of the Somnath temple looted by Mahmud of Ghazni be returned to India.

"Now, the question arises whether Nehru Ji, who was engaged in flattering Liaquat Ali, was speaking the truth, or whether the statement published by a Ministry of the Government of India is true," he said, adding, "What was Pandit Nehru's fear that compelled him to write such a letter?"

The Congress strongly rejected the allegations. Party leader Piyush Babele

said the BJP was selectively quoting Nehru's correspondence while ignoring its broader context.

"They are serving lies and half-truths by cherry-picking letters," he said in a video shared by Congress general secretary Jairam Ramesh.

Use of govt. funds

Mr. Babele argued that Nehru's consistent position was opposition to the use of government funds for religious purposes, in line with Mahatma Gandhi's views, Sardar Vallabhbhai Patel's assurances, and constitutional principles.

He referred to multiple letters from 1951 in which Nehru clarified that while he objected to state funding, he did not prevent then President Rajendra Prasad from attending the inauguration in his personal capacity.

The Congress leader also questioned why Presidents Ram Nath Kovind and Droupadi Murmu were not invited to events related to the Ram temple events in Ayodhya, accusing the BJP of political double standards.

BJP, Congress spar over Nehru's role in reconstruction of Somnath temple सोमनाथ मंदिर के पुनर्निर्माण में नेहरू की भूमिका पर भाजपा और कांग्रेस में टकराव

- The **Bharatiya Janata Party** and the **Congress** on Wednesday engaged in a sharp war of words over the role of India's **first Prime Minister Jawaharlal Nehru** in the reconstruction and inauguration of the **Somnath temple**. The **ruling party accused Nehru of "appeasement politics"**, and the **Opposition rejected the charge as being based on "lies and half-truths"**. भारतीय जनता पार्टी और कांग्रेस के बीच बुधवार को भारत के पहले प्रधानमंत्री जवाहरलाल नेहरू की सोमनाथ मंदिर के पुनर्निर्माण और उद्घाटन में भूमिका को लेकर तीखी बयानबाजी हुई। सत्तारूढ़ दल ने नेहरू पर "तुष्टिकरण की राजनीति" का आरोप लगाया, जबकि विपक्ष ने इसे "झूठ और आधे-अधूरे सच" पर आधारित बताया।
- At a press conference, **BJP MP and spokesperson Sudhanshu Trivedi** said the former Prime Minister was not merely a political leader but a symbol of an ideology. "It is necessary today to understand how truly terrifying and horrifying that ideology was for India, and how a



massive veil was drawn over its true face,” he said.

एक प्रेस कॉन्फ्रेंस में **भाजपा सांसद और प्रवक्ता सुधांशु त्रिवेदी** ने कहा कि पूर्व प्रधानमंत्री केवल एक राजनीतिक नेता नहीं बल्कि एक विचारधारा के प्रतीक थे। उन्होंने कहा, “आज यह समझना ज़रूरी है कि वह विचारधारा भारत के लिए कितनी भयावह थी और उसके असली चेहरे पर कैसे बड़ा पर्दा डाला गया।”

Refers to 1951 letter 1951 के पत्र का उल्लेख

- Referring to a letter written by Nehru in **April 1951** to then Pakistan Prime Minister **Liaquat Ali Khan**, Mr. Trivedi said the **former Prime Minister addressed him as “My Dear Nawabzada”**, and stated that what was happening at the Somnath temple was **“wrong”** and there should be **no malicious propaganda** about it. He quoted the letter as saying that claims about **temple doors being brought back from Afghanistan were completely false**.
अप्रैल 1951 में तत्कालीन पाकिस्तान प्रधानमंत्री **लियाकत अली खान** को नेहरू द्वारा लिखे गए पत्र का हवाला देते हुए श्री त्रिवेदी ने कहा कि पूर्व प्रधानमंत्री ने उन्हें **“माय डियर नवाबज़ादा”** संबोधित किया और कहा कि सोमनाथ मंदिर में जो हो रहा था वह **“गलत”** है तथा इस पर **दुर्भावनापूर्ण प्रचार** नहीं होना चाहिए। उन्होंने पत्र से उद्धृत किया कि **अफगानिस्तान** से मंदिर के द्वार लाए जाने के दावे पूरी तरह झूठे थे।
- The BJP leader pointed out a publication by the previous **Congress government — L.S. Bakshi’s book on Maharaja Ranjit Singh** — which states that **after conquering Kabul, Maharaja Ranjit Singh had included a condition in a treaty that the doors of the Somnath temple looted by Mahmud of Ghazni be returned to India**.
भाजपा नेता ने पूर्व **कांग्रेस सरकार** के एक प्रकाशन — **एल.एस. बक्शी की महाराजा रणजीत सिंह पर पुस्तक** — का हवाला दिया, जिसमें कहा गया है कि **काबुल** पर विजय के बाद महाराजा रणजीत सिंह ने एक संधि में यह शर्त रखी थी कि **महमूद गज़नी** द्वारा लूटे गए सोमनाथ मंदिर के द्वार भारत लौटाए जाएँ।
- Nehru’s consistent position was opposition to the **use of government funds** for religious purposes, in line with **Mahatma Gandhi’s** views, **Sardar Vallabhbhai Patel’s** assurances, and **constitutional principles**.
श्री बबेले ने तर्क दिया कि नेहरू का निरंतर रुख धार्मिक उद्देश्यों के लिए **सरकारी धन के उपयोग** का विरोध करना था, जो **महात्मा गांधी** के विचारों, **सरदार वल्लभभाई पटेल** के आश्वासनों और **संवैधानिक सिद्धांतों** के अनुरूप था।
- He referred to multiple letters from **1951** in which **Nehru clarified that while he objected to state funding, he did not prevent then President Rajendra Prasad from attending the inauguration in his personal capacity**.

atmosphere, allowing them to move across thousands of kilometres over the earth. This phenomenon is called infrasound _____. Fill in the blanks.

Answers to January 6 quiz:

- ‘Work month’ in the Roman calendar replaced by leap days – **Ans: Mercedonius**
 - Astronomer whom Caesar consulted for the Julian calendar – **Ans: Sosigenes**
 - Astronomical cycle the Julian calendar tried to approximate – **Ans: Tropical cycle**
 - Name for 46 BC due to transitioning between the calendars – **Ans: “Year of confusion”**
 - Average difference between Julian, Gregorian calendars – **Ans: 0.0075 days**
- Visual: **Janus**
First contact: Tamal Biswas | K.N. Viswanathan | Anmol Agrawal | Appa Rao M.V. | Prem Raj P.

QUIZ: Mercedonius and the Roman Calendar Reform

- Term: Mercedonius**
- Type:** Intercalary or extra month
- Civilisation: Ancient Rome**
- Popular Description:** Known as the **“work month”**
- Key Change:** Later replaced by leap days in calendar reform

Historical Background

- The early Roman calendar followed a lunar system**
- It had only 355 days, shorter than the solar year**
- This caused a growing mismatch between
- Calendar dates
- Agricultural seasons
- Religious festivals
- To correct this seasonal drift, Romans introduced an extra month called Mercedonius**

What Was Mercedonius

- Mercedonius was an additional month inserted**
- Usually every second year**
- After the month of February**



- Duration
- Around **22 or 23 days**
- Purpose
- To realign the Roman calendar with the **solar year**
- Authority
- Controlled by the **Pontifex Maximus**, the chief priest of Rome

Why Mercedonius Was Called the “Work Month”

- The name **Mercedonius** comes from the Latin word **merces**
- Meaning **wages, pay, or reward for work**
- This month was traditionally associated with
- Payment of labourers
- Settlement of work contracts

Problems with the Mercedonius System

- **Political misuse**
- Priests could decide when to add or skip the month
- Used to extend or shorten the tenure of political allies
- **Administrative confusion**
- Citizens could not predict
- The length of the year
- The timing of festivals
- The Roman calendar became
- Unreliable
- Politicised
- Difficult to manage

Replacement by Leap Days

Julian Calendar Reform

- In **46 BCE**, **Julius Caesar** introduced a major reform of the Roman calendar
- He abolished the system of
- Irregular extra months like **Mercedonius**
- He introduced
- A **solar-based calendar of 365 days**
- With one extra **leap day every four years**
- This leap day was added to
- The month of **February**

Why Leap Days Replaced Mercedonius

- **Scientific accuracy**
- Leap days follow a clear mathematical rule
- **End of priestly control**
- No authority could manipulate the calendar for politics
- **Seasonal stability**
- Agricultural cycles and festivals stayed aligned
- **Administrative simplicity**
- The calendar became predictable for everyone

Astronomer Consulted by Julius Caesar for the Julian Calendar

Sosigenes of Alexandria

- Sosigenes was a **Greek astronomer and mathematician** from **Alexandria, Egypt**
- He lived in the **1st century BCE**
- He belonged to the **Hellenistic scientific tradition**
- He specialised in
 - Astronomy
 - Solar cycles
 - Calendar reform

Julius Caesar’s Reform

- In **46 BCE**, Julius Caesar became **Pontifex Maximus**
- He wanted a **scientific and permanent calendar system**
- He consulted **Sosigenes of Alexandria** to design a new one
- Sosigenes proposed a **solar-based calendar**
- Inspired by the **Egyptian solar calendar**
- Fixed the year at



- 365 days
- Plus one extra day every four years

Structure Designed

- 12 months
- 365 days in a normal year
- 366 days in a leap year
- Seasons aligned accurately with the Sun

Birth of the Julian Calendar

- **46 BCE** – known as the **Year of Confusion** because extra days were added to reset time
- **45 BCE** – the **Julian Calendar** officially came into use
- The Julian Calendar later became the basis for the **Gregorian Calendar**, used today

Tropical Cycle and the Julian Calendar

- **Astronomical Cycle: Tropical Cycle** (also called the **Tropical Year**)
- **Calendar System: Julian Calendar**
- **Key Objective:** To align the calendar year with the **seasonal cycle of the Earth**
- The Julian calendar tried to approximate the **Tropical Cycle**
- **The Tropical Cycle is the time taken by the Earth to complete one full revolution around the Sun with respect to the seasons**

- It is measured from
- **One vernal equinox to the next**
- Length of the tropical year
- **365 days, 5 hours, 48 minutes, 45 seconds** (approximately **365.2422 days**)
- This cycle determines
- The timing of **seasons**
- Agricultural patterns
- Religious and cultural festivals linked to solstices and equinoxes

The Small Error in the Julian System

- Actual tropical year
- **365.2422 days**
- Julian year
- **365.25 days**
- Difference
- **About 11 minutes per year**
- Result
- An error of **one full day every 128 years**
- Over centuries
- Spring equinox slowly shifted backward in the calendar

Why This Error Became a Serious Problem

- By the **16th century**
- The calendar had drifted by about **10 days**
- Important Christian festivals
- Especially **Easter**
- Were no longer aligned with the spring equinox
- This created
- Religious confusion
- Administrative difficulty
- **Astronomical inaccuracy**

Correction Through the Gregorian Reform

- In **1582**, **Pope Gregory XIII** introduced calendar reforms
- Main changes
- Removed **10 accumulated days**
- Modified leap-year rules
- New average year length
- **365.2425 days**
- This brought the calendar even closer to
- The true **tropical cycle**

Average Difference Between the Julian and Gregorian Calendars

- **Julian Calendar**
Introduced by **Julius Caesar** in **46 BCE**
Based on a year length of **365.25 days**



• Gregorian Calendar

Introduced by **Pope Gregory XIII in 1582**

Refined version of the Julian system to correct long-term errors

Understanding the 0.0075 Days Difference

• Julian year length

365.25 days

• Gregorian year length (average)

365.2425 days

• Difference per year

$365.25 - 365.2425 = 0.0075$ days

• In time units

0.0075 days = 10 minutes 48 seconds

Why This Difference Matters

• The Earth's true seasonal year

Known as the **tropical year**

Length: **365.2422 days**

• The **Julian calendar** runs slightly longer than the tropical year

• This causes the calendar to drift

About **1 day every 128 years**

The Gregorian Correction

• The Gregorian reform introduced **a new leap-year rule**

Leap-Year Rule in the Gregorian Calendar

• A year is a leap year if

• It is divisible by **4**

• But **not** a leap year if

• It is divisible by **100**

• **Unless** it is divisible by **400**

• This removes

• **3 leap days every 400 years**

• Result

• A more accurate average year length

• **365.2425 days**, very close to the tropical year

GS Paper 1: Society

TOPICS COVERED

08 January 2026

- Census first phase to be held from April 1 to Sept. 30 this year**
जनगणना का पहला चरण इस वर्ष 1 अप्रैल से 30 सितंबर तक होगा



Census first phase to be held from April 1 to Sept. 30 this year

The **houselisting phase will be conducted in each State over a 30-day period**; second phase of the count will be carried out in February 2027

GS I: Society: Population

Vijaita Singh
NEW DELHI

The first phase of Census 2027, the houselisting operations (HLO) phase, will be conducted from April 1 to September 30 across all States and Union Territories, the Registrar-General and Census Commissioner of India said in a notification on Wednesday.

This phase will be conducted in each State over a 30-day period, with the specific dates to be notified by the States.

The self-enumeration option will be available 15 days before the start of the phase.

“The houselisting operations of the Census of India 2027 shall take place between 1st April, 2026 and 30th September, 2026 in all States and Union territories in India during the period of thirty days specified by each State and Union territory. There shall also be an option for self enumeration which shall be conducted in fifteen days’ time period just before the start of house to



The pre-test for the first phase of the Census was held from November 10 to 30 in select areas across the country. FILE PHOTO

house houselisting operations of thirty days,” Census Commissioner Mritunjay Kumar Narayan said in a Gazette notification.

This will be the first digital Census and the first to enumerate caste in Independent India.

Household queries

The second phase of the Census is the population enumeration phase in February 2027.

Caste identities will be enumerated during this phase.

The pre-test or the preparatory exercise for the first phase of the Census

was held from November 10 to 30 last year in select areas across the country. It had sought household responses to 35 questions, including the composition of the floor and roof of the house, main cereal consumed, source of drinking water and cooking fuel, and the number of married couples in the house.

About 30 lakh field functionaries – including enumerators, supervisors, master trainers, charge officers, and Principal/District Census Officers – will be deployed for data collection, and supervision of Census operations.

Census first phase to be held from April 1 to Sept. 30 this year जनगणना का पहला चरण इस वर्ष 1 अप्रैल से 30 सितंबर तक होगा

- The **houselisting phase will be conducted in each State over a 30-day period**; **second phase of the count will be carried out in February 2027**
हाउस लिस्टिंग चरण प्रत्येक राज्य में 30 दिनों की अवधि में आयोजित किया जाएगा; गणना का दूसरा चरण फरवरी 2027 में किया जाएगा
- The **first phase of Census 2027, the houselisting operations (HLO) phase, will be conducted from April 1 to September 30 across all States and Union Territories, the**



Registrar-General and Census Commissioner of India said in a notification on Wednesday

जनगणना 2027 का पहला चरण, यानी हाउस लिस्टिंग ऑपरेशंस (HLO) चरण, सभी राज्यों और केंद्र शासित प्रदेशों में 1 अप्रैल से 30 सितंबर तक आयोजित किया जाएगा, यह जानकारी भारत के रजिस्ट्रार जनरल और जनगणना आयुक्त ने बुधवार को एक अधिसूचना में दी

- This phase will be conducted in each State over a 30-day period, with the specific dates to be notified by the States
यह चरण प्रत्येक राज्य में 30 दिनों की अवधि में आयोजित किया जाएगा, जिसकी विशिष्ट तिथियाँ राज्य सरकारों द्वारा अधिसूचित की जाएँगी
- The self-enumeration option will be available 15 days before the start of the phase
स्व-गणना विकल्प चरण की शुरुआत से 15 दिन पहले उपलब्ध होगा
- "The houselisting operations of the Census of India 2027 shall take place between 1st April, 2026 and 30th September, 2026 in all States and Union territories in India during the period of thirty days specified by each State and Union territory. There shall also be an option for self enumeration which shall be conducted in fifteen days' time period just before the start of house to house houselisting operations of thirty days," **Census Commissioner Mritunjay Kumar Narayan** said in a Gazette notification
"भारत की जनगणना 2027 की हाउस लिस्टिंग प्रक्रिया 1 अप्रैल 2026 से 30 सितंबर 2026 के बीच भारत के सभी राज्यों और केंद्र शासित प्रदेशों में, प्रत्येक राज्य और केंद्र शासित प्रदेश द्वारा निर्दिष्ट 30 दिनों की अवधि में आयोजित की जाएगी। इसके अतिरिक्त, स्व-गणना का विकल्प भी होगा, जो घर-घर हाउस लिस्टिंग प्रक्रिया शुरू होने से ठीक पहले 15 दिनों की अवधि में किया जाएगा," जनगणना आयुक्त मृत्यंजय कुमार नारायण ने राजपत्र अधिसूचना में कहा
- This will be the first digital Census and the first to enumerate caste in Independent India
यह पहली डिजिटल जनगणना होगी और स्वतंत्र भारत में पहली बार जाति गणना की जाएगी

Household queries

घरेलू प्रश्न

- The second phase of the Census is the population enumeration phase in February 2027
जनगणना का दूसरा चरण, यानी जनसंख्या गणना चरण, फरवरी 2027 में होगा
- Caste identities will be enumerated during this phase
इस चरण में जातिगत पहचान की गणना की जाएगी
- The pre-test or the preparatory exercise for the first phase of the Census was held from November 10 to 30 last year in select areas across the country
जनगणना के पहले चरण के लिए प्री-टेस्ट या तैयारी अभ्यास पिछले वर्ष 10 नवंबर से 30 नवंबर तक देश के चयनित क्षेत्रों में किया गया था
- It had sought household responses to 35 questions, including the composition of the floor and roof of the house, main cereal consumed, source of drinking water and cooking fuel, and the number of married couples in the house
इसमें घरों से 35 प्रश्नों के उत्तर मांगे गए थे, जिनमें घर के फर्श और छत की बनावट, मुख्य अनाज, पीने के पानी और खाना पकाने के ईंधन का स्रोत, और घर में विवाहित दंपतियों की संख्या शामिल थी
- About 30 lakh eld functionaries — including enumerators, supervisors, master trainers, charge officers, and Principal/District Census Officers — will be deployed for data collection and supervision of Census operations
लगभग 30 लाख फील्ड कर्मी — जिनमें गणनाकर्ता, पर्यवेक्षक, मास्टर प्रशिक्षक, चार्ज अधिकारी और प्रधान/जिला जनगणना अधिकारी शामिल हैं — डेटा संग्रह और जनगणना कार्यों की निगरानी के लिए तैनात किए जाएँगे

GS Paper II: Polity,	
TOPICS COVERED	08 January 2026
1.	SC in 'disagreement' with Justice Varma's claims on LS Speaker एलएस स्पीकर पर जस्टिस वर्मा के दावों से 'असहमति' में सुप्रीम कोर्ट



2. Kerala's new language Bill is unconstitutional: Karnataka केरल का नया भाषा विधेयक असंवैधानिक है: कर्नाटक

SC in 'disagreement' with Justice Varma's claims on LS Speaker

ISS II: Polity

Krishnadas Rajagopal
NEW DELHI

The Supreme Court said on Wednesday that it *prima facie* disagreed with Justice Yashwant Varma's claim that Lok Sabha Speaker Om Birla had overstepped the statutory rigour of the Judges (Inquiry) Act by "unilaterally" constituting a committee to examine allegations about the sacks of half-burnt currency found on the premises of the judge's official residence in Delhi in March 2025.

After the allegations against the judge arose, two motions for his removal - one in the Lok Sabha and another in the Rajya Sabha - were submitted on July 21, 2025. While the Rajya Sabha Deputy Chairman rejected the notice of motion, a day later, on August 12, 2025, Lok Sabha Speaker Om Birla constituted a three-member inquiry committee under the Act.

The Bench of Justices Dipankar Datta and S.C. Sharma orally expressed its *prima facie* disagreement with the contention raised by senior advocate Mukul Rohatgi, appearing for Justice Varma, that the Rajya Sabha Deputy Chairman had no authority to "step into the shoes" of the Chairman and reject the notice of motion submitted in the Upper House.

Argues for joint panel

During the hour-long hearing, Mr. Rohatgi referred to the first proviso of Section 3(2) of the Act, which mandates that in such cases, the inquiry committee had to be "constituted jointly by the Speaker and the Chairman" following the admission of the motions in both Houses.

In the present case, Mr. Rohatgi submitted that the LS Speaker had no authority to form the panel "unilaterally" on August 12.

"Under the proviso



Justice Yashwant Varma

when notices of motion for removal of a judge are given in the two Houses on the same day, both Houses have to admit the motions and the inquiry committee should be formed jointly by the Chairman and the Speaker. The then Rajya Sabha Chairman did not admit the notice of motion," Mr. Rohatgi submitted.

'Leaving the field open' Justice Dipankar Datta, however, queried, "But where is the bar on the Speaker from constituting a committee if the Rajya Sabha has rejected the motion... Are you saying if one House rejects the motion, it should be rejected in both Houses?"

At this point, Mr. Rohatgi questioned the competency of the Deputy Chairman of the Rajya Sabha to reject the notice of motion, purportedly leaving the field open for the Speaker to constitute the inquiry committee.

He said the then-Rajya Sabha Chairman, Vice-President Jagdeep Dhankar, had resigned on July 21, after receiving the notice of motion without formally admitting it.

"If the office of the Chairman was vacant, somebody had to step in," Justice Datta responded.

"But he [Deputy Chairman] steps in only to regulate the House," Mr. Rohatgi submitted.

The court scheduled the case for further hearing on January 8.

SC in 'disagreement' with Justice Varma's claims on LS Speaker

एलएस स्पीकर पर जस्टिस वर्मा के दावों से 'असहमति' में सुप्रीम कोर्ट

The Supreme Court said on Wednesday that it *prima facie* disagreed with Justice Yashwant Varma's claim that Lok Sabha Speaker Om Birla had overstepped the statutory rigour of the Judges (Inquiry) Act by "unilaterally" constituting a committee to examine allegations about the sacks of half-burnt currency found on the premises of the judge's official residence in Delhi in March 2025.

सुप्रीम कोर्ट ने बुधवार को कहा कि वह प्रथम दृष्टया जस्टिस यशवंत वर्मा के इस दावे से असहमत है कि लोकसभा अध्यक्ष ओम बिरला ने न्यायाधीश (जांच) अधिनियम की वैधानिक कठोरता का उल्लंघन करते हुए "एकतरफा" रूप से एक समिति गठित की, जो मार्च 2025 में दिल्ली में न्यायाधीश के आधिकारिक आवास परिसर में पाए गए आधे जले हुए नोटों की बोरियों से संबंधित आरोपों की जांच करे।

After the allegations against the judge arose, two motions for his removal - one in the Lok Sabha and another in the Rajya Sabha - were submitted on July 21, 2025.

न्यायाधीश के खिलाफ आरोप सामने आने के बाद, उनके हटाने के लिए दो प्रस्ताव - एक लोकसभा में और दूसरा राज्यसभा में - 21 जुलाई 2025 को प्रस्तुत किए गए।

While the Rajya Sabha Deputy Chairman rejected the notice of motion, a day later, on August 12, 2025, Lok Sabha Speaker Om Birla constituted a three-member inquiry committee under the Act.

During the hour-long hearing, Mr. Rohatgi referred to the first provision of Section 3(2) of the Act, which mandates that in such cases, the inquiry committee had to be "constituted jointly by the Speaker and the Chairman" following the admission of the motions in both Houses.

"Under the proviso when notices of motion for removal of a judge are given in the two Houses on the same day, both Houses have to admit the motions and the inquiry committee should be formed jointly by the Chairman and the Speaker. The then Rajya Sabha Chairman did not admit the notice of motion," Mr. Rohatgi submitted.

Justice Dipankar Datta, however, queried, "But where is the bar on the Speaker from constituting a committee if the Rajya Sabha has rejected the motion... Are you saying if one House rejects the motion, it should be rejected in both Houses?"

हालांकि न्यायमूर्ति दीपांकर दत्ता ने सवाल किया, "लेकिन यदि राज्यसभा ने प्रस्ताव खारिज कर दिया है तो स्पीकर द्वारा समिति गठित करने पर रोक कहाँ है... क्या आप कह रहे हैं कि यदि एक सदन प्रस्ताव खारिज करता है, तो दोनों सदनों में उसे खारिज किया जाना चाहिए?"

At this point, Mr. Rohatgi questioned the competency of the Deputy Chairman of the Rajya Sabha to reject the notice of motion, purportedly leaving the field open for the Speaker to constitute the inquiry committee.

इस बिंदु पर रोहतगी ने राज्यसभा के उपसभापति की क्षमता पर सवाल उठाया कि वे प्रस्ताव की सूचना को खारिज करें, जिससे कथित तौर पर स्पीकर के लिए जांच समिति गठित करने का रास्ता खुल गया।

He said the then-Rajya Sabha Chairman, Vice-President Jagdeep Dhankar, had resigned on July 21, after receiving the notice of motion without formally admitting it.



उन्होंने कहा कि तत्कालीन **राज्यसभा अध्यक्ष, उपराष्ट्रपति जगदीप धनखड़**, ने प्रस्ताव की सूचना प्राप्त करने के बाद उसे औपचारिक रूप से स्वीकार किए बिना **21 जुलाई** को इस्तीफा दे दिया था।

- “If the office of the Chairman was vacant, somebody had to step in,” Justice **Datta** responded. “यदि अध्यक्ष का पद रिक्त था, तो किसी को तो आगे आना ही था,” न्यायमूर्ति **दत्ता** ने उत्तर दिया।
- “But he [Deputy Chairman] steps in only to regulate the House,” Mr. **Rohatgi** submitted. “लेकिन वे [उपसभापति] केवल सदन के संचालन को विनियमित करने के लिए आगे आते हैं,” **रोहतगी** ने कहा।

Kerala's new language Bill is unconstitutional: Karnataka

Delegation urges Kerala Governor to reject Bill that makes Malayalam compulsory first language in all Kerala schools; it says draft law is against interests of Kannada-speaking minority in Kerala

GS II: Polity

Sharath S. Srivatsa
BENGALURU

In yet another thorn in the Karnataka-Kerala relationship, the Karnataka government has taken objection to the **Malayalam Bhasha Bill, 2025**, that makes Malayalam the compulsory first language in all schools across Kerala.

A delegation from Karnataka met Kerala Governor Rajendra Vishwanath Arlekar and urged him to reject the Bill.

Karnataka has said that the Bill is “unconstitutional” and against the interest of the **Kannada-speaking linguistic minority in Kerala**, especially those living in the border district of **Kasaragod**.

A delegation from the Karnataka Border Area Development Authority, on behalf of the Karnataka government, met the Govern-



A team from the **Karnataka Border Area Development Authority** with Kerala Governor Rajendra Arlekar in Kasaragod on Wednesday.

nor at Kasaragod on Wednesday and handed over a petition to reject the Bill.

A similar Bill passed in 2017 had been rejected by the President.

‘Exempt Kasaragod’

“The Kerala Assembly recently has passed a Bill called Malayalam Bhasha Bill, 2025, and submitted for your assent, which is pending in your office. It is similar to the Bill of 2017,”

the authority’s letter to the Governor pointed out.

“We want Kasaragod, where more than 70% of the population is Kannada speaking, to be excluded from the purview of the Bill. As per Article 350 and Article 350A, it is the duty of the State government to protect rights of linguistic minorities. This Bill violates constitutional rights,” said authority secretary Prakash Mattihalli, who led

the delegation.

“Mr. Arlekar promised us that he would consider our plea,” he said.

This comes close on the heels of **Kogilu Layout demolition** following which sparks flew between Karnataka and Kerala leaders, especially after Kerala Chief Minister Pinarayi Vijayan dubbed the demolition “brutal normalisation of bulldozer raj”.

Pointing out the provisions of the Bill, the Karnataka government has said, “Section 2(6) defines that the first language Malayalam should be taught as compulsory subject in Kerala schools up to Class 10 in all government and aided schools. In Kasaragod and other Kannada-speaking areas of Kerala, linguistic minority students are studying Kannada as their first language and another language as second language.”

Kerala's new language Bill is unconstitutional: Karnataka केरल का नया भाषा विधेयक असंवैधानिक है: कर्नाटक

- “We want **Kasaragod**, where more than **70%** of the population is **Kannada speaking**, to be excluded from the purview of the Bill. **As per Article 350 and Article 350A, it is the duty of the State government to protect the rights of linguistic minorities.** This Bill violates **constitutional rights**,” said authority secretary **Prakash Mattihalli**, who led the delegation. “हम चाहते हैं कि **कासरगोड**, जहाँ **70% से अधिक** आबादी **कन्नड़ भाषी** है, को इस विधेयक के दायरे से बाहर रखा जाए। **अनुच्छेद 350** और **अनुच्छेद 350A** के अनुसार, भाषाई अल्पसंख्यकों के अधिकारों की रक्षा करना राज्य सरकार का कर्तव्य है। यह विधेयक **संवैधानिक अधिकारों** का उल्लंघन करता है,” प्रतिनिधिमंडल का नेतृत्व करने वाले प्राधिकरण सचिव **प्रकाश मत्तिहल्ली** ने कहा।
- “**Section 2(6)** defines that the first language **Malayalam** should be taught as compulsory subject in Kerala schools up to **Class 10** in all **government and aided schools**. In



Kasaragod and other Kannada-speaking areas of Kerala, linguistic minority students are studying **Kannada** as their first language and another language as second language.”

GS Paper II: Governance	
TOPICS COVERED	08 January 2026
1. Fine-tune this signal to sharpen India's AMR battle भारत की एमआर लड़ाई को तेज़ करने के लिए इस संकेत को परिष्कृत करें	

Fine-tune this signal to sharpen India's AMR battle

GS II: Governance

Will Prime Minister Narendra Modi's statement on antimicrobial resistance, in his last 'Mann Ki Baat' broadcast for the year 2025 be the anagnorisis that we have been waiting for to galvanise action on Antimicrobial Resistance (AMR) in India? Doctors feel that it might well be the one fell swoop to stop in its tracks what could easily be the biggest emerging health crisis of India.

In his address (129th edition) on December 28, Mr. Modi mentioned antimicrobial resistance as a "matter of concern for us." Quoting from the Indian Council for Medical Research's (ICMR) dataset, he mentioned that antibiotics are proving to be less effective against pneumonia and urinary tract infections. He went on to hit at the heart of the AMR crisis in India – "thoughtless and indiscriminate use of antibiotics by people". These were not medicines to be taken casually or without the advice of doctors, the Prime Minister stressed. "People have started believing that popping a pill will solve everything. But it is because of this that diseases and infections are overpowering antibiotics." Appreciably, he ended with a piece of advice that his listeners and followers will do well to religiously practise: "Avoid taking medicines by yourself, particularly antibiotics."

Mainstreaming the subject

It is, by now, common knowledge that while there are many prongs that contribute to the galloping AMR in the country, the biggest contributor is the irrational use of antibiotics. Commonly known as the 'misuse and overuse' problem, AMR however, has remained in the preserve of the infectious diseases experts and the corridors of hospitals, and in policy circles. Until now. That is where Mr. Modi's remarks will make a difference, coaxing AMR out of the rarefied domain into the mainstream, where there is awareness of the public risk it poses, along with the links to everyday behaviour.

By invoking national data and appealing directly to citizens to avoid over-the-counter



Ramya Kannan

The 'Mann Ki Baat' broadcast of December 2025 will increase awareness, but expanding the surveillance network for AMR is crucial

antibiotics, the speech translates lab-based warnings into a public call to action, from the pulpit by the head of the government. This is why it is reasonable to expect it to have an impact on the population in a manner that no other intervention in the past in the sector – the first National Action Plan on Antimicrobial Resistance or the ban on colistin use as a growth factor, for instance – has managed. Striking at the broadest base is where the success of this appeal lies, and public awareness will be absolutely key in deciding whether the AMR numbers see an upper trajectory or whether they go down south in the future.

But, merely at hitting the base will no longer be sufficient, at this stage of the AMR pathway in India. It has grown like a hydra-headed beast and it is a One Health approach that can behead the monster effectively. The need for a One Health approach has become current by force of circumstances where cognition of the interconnectedness of human, animal and environmental health now actively shapes solutions.

Most non-urban centres left out

At this juncture, enhancing the number of surveillance sites is a critical aspect of marking and following the trail of AMR in India, experts point out. They contend, that currently, while the network is steadily expanding, there is still no exhaustive dataset for India as a whole, representative of the wide variance in the country.

Surveillance sites are located largely in urban centres and tertiary care centres, and may drive up the average as the bulk of the non-urban centres are not even accounted for. The urgent need now is to expand the surveillance network in a manner that will provide a reasonably accurate position of community prevalence of AMR in India.

India's National AMR surveillance network (NARS-Net), which provides data to the World Health Organization's Global Antimicrobial

Resistance and Use Surveillance System (GLASS), currently stands at 60 sentinel medical college laboratories.

However, for the recent GLASS report (reporting period January to December 2023), information was gathered from 41 sites in 31 States/Union Territories. NARS-Net was established in 2013 to determine the magnitude and trends of AMR in different geographical regions of the country, and laboratories under this network include government medical colleges. These labs are required to submit AMR surveillance data on nine priority bacterial pathogens of 'public health importance' and some fungal pathogens as well.

'Include private hospitals'

Recently, in a letter to the Director of the National Centre for Disease Control, Professor, (Dr.) Ranjan Das, the nodal agency for AMR surveillance in the country, Dr. Abdul Ghafur, of the Chennai Declaration on AMR and an infectious diseases specialist, said, "... the only credible approach is to present true national data – data not limited to tertiary care hospitals, but inclusive of secondary and primary care centres across the country. If such data are included, the national resistance picture will naturally be more balanced and representative." He also makes the case for including private hospitals in the network too.

The 2015 WHO Global Plan on AMR recommended a blueprint addressing five objectives: raising awareness, strengthening surveillance and research, reducing infections, optimising antimicrobial use, and ensuring sustainable investment in new medicines, diagnostics and vaccines. Mr. Modi's speech will increase awareness, something that is essential, but expanding the surveillance network for AMR is a critical function that will require investments, strategies, monitoring and enforcement and as much political will.

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Fine-tune this signal to sharpen India's AMR battle

भारत की एमआर लड़ाई को तेज़ करने के लिए इस संकेत को परिष्कृत करें

- In his address (129th edition) on December 28, Mr. Modi mentioned **antimicrobial resistance as a "matter of concern for us."**
अपने 28 दिसंबर के संबोधन (129वाँ संस्करण) में श्री मोदी ने एंटीमाइक्रोबियल रेज़िस्टेंस को "हम सभी के लिए चिंता का विषय" बताया।
- Quoting from the **Indian Council for Medical Research (ICMR)** dataset, he mentioned that **antibiotics are proving to be less effective against pneumonia and urinary tract infections.**

It is, by now, common knowledge that while there are many prongs that contribute to the



galloping AMR in the country, the **biggest contributor is the irrational use of antibiotics**. अब यह आम समझ बन चुकी है कि देश में तेज़ी से बढ़ते AMR के कई कारण हैं, लेकिन सबसे बड़ा कारण एंटीबायोटिक्स का अविवेकपूर्ण उपयोग है।

- Commonly known as the **'misuse and overuse' problem**, AMR, however, has remained in the preserve of the **infectious diseases experts**, the **corridors of hospitals**, and in **policy circles**.
- This is why it is reasonable to expect it to have an **impact on the population** in a manner that no other intervention in the past in the sector — the **first National Action Plan on Antimicrobial Resistance** or the **ban on colistin use as a growth factor**, for instance — has managed.
इसी कारण यह उम्मीद करना उचित है कि इसका **जनसंख्या पर प्रभाव** पड़ेगा, जैसा कि इस क्षेत्र में पहले की कोई पहल — जैसे **एंटीमाइक्रोबियल रेज़िस्टेंस पर पहला राष्ट्रीय कार्ययोजना** या **कोलिस्टिन के उपयोग पर प्रतिबंध** — नहीं कर सकी।
- **Striking at the broadest base** is where the success of this appeal lies, and **public awareness** will be absolutely **key** in deciding whether the AMR numbers see an **upper trajectory** or whether they **go down south** in the future.
- The urgent need now is to expand the surveillance network in a manner that will provide a **reasonably accurate position** of **community prevalence of AMR in India**.
अब तत्काल आवश्यकता यह है कि निगरानी नेटवर्क को इस तरह बढ़ाया जाए जिससे **भारत में AMR की सामुदायिक व्यापकता** की यथोचित सटीक स्थिति सामने आ सके।
- **India's National AMR surveillance network (NARS-Net)**, which provides data to the **World Health Organization's Global Antimicrobial Resistance and Use Surveillance System (GLASS)**, currently stands at **60 sentinel medical college laboratories**.
भारत का **नेशनल AMR सर्विलांस नेटवर्क (NARS-Net)**, जो **विश्व स्वास्थ्य संगठन** की **ग्लोबल एंटीमाइक्रोबियल रेज़िस्टेंस एंड यूज़ सर्विलांस सिस्टम (GLASS)** को डेटा देता है, फिलहाल **60 सेंटिनल मेडिकल कॉलेज प्रयोगशालाओं** तक सीमित है।
- However, for the recent **GLASS report (reporting period January to December 2023)**, information was gathered from **41 sites in 31 States/Union Territories**.
हालाँकि, हालिया **GLASS रिपोर्ट (रिपोर्टिंग अवधि जनवरी से दिसंबर 2023)** के लिए जानकारी **31 राज्यों/केंद्रशासित प्रदेशों** के **41 केंद्रों** से जुटाई गई थी।
- **NARS-Net was established in 2013** to determine the magnitude and trends of **AMR in different geographical regions** of the country, and laboratories under this network include **government medical colleges**.
NARS-Net की स्थापना **2013** में देश के **विभिन्न भौगोलिक क्षेत्रों में AMR** की स्थिति और प्रवृत्तियों को जानने के लिए की गई थी, और इस नेटवर्क में **सरकारी मेडिकल कॉलेजों** की प्रयोगशालाएँ शामिल हैं।
- These labs are required to submit AMR surveillance data on **nine priority bacterial pathogens** of **'public health importance'** and some **fungal pathogens** as well.
इन प्रयोगशालाओं को **'सार्वजनिक स्वास्थ्य महत्व'** वाले **नौ प्राथमिक बैक्टीरियल रोगजनकों** और कुछ **फंगल रोगजनकों** पर AMR से संबंधित डेटा देना होता है।

'Include private hospitals'

'निजी अस्पतालों को शामिल करें'

- **National Centre for Disease Control**, the nodal agency for **AMR surveillance in the country**, of the **Chennai Declaration on AMR** "... the only credible approach is to present **true national data** — data not limited to **tertiary care hospitals**, but inclusive of **secondary and primary care centres** across the country."
- The **2015 WHO Global Plan on AMR** recommended a blueprint addressing **five objectives: raising awareness, strengthening surveillance and research, reducing infections, optimising antimicrobial use**, and ensuring **sustainable investment** in new medicines, diagnostics and vaccines.



Venezuela oil grab revives 'petrodollar' debate



Slippery slope: Venezuela's oil output is currently modest at barely 1 million barrels per day. REUTERS

CS II IR
Reuters
ORLANDO, FLORIDA

There were likely many motives behind America's capture and arrest of Venezuelan President Nicolas Maduro on Saturday, but one little-discussed factor could be the White House's concerns about the waning global prominence of the "petrodollar."

Venezuela's oil output is currently modest at barely 1 million barrels per day, but its reported reserves of around 300 billion barrels — 17% of the global stock — are the world's largest.

President Donald Trump has made it clear that the U.S. is interested in tapping this enormous potential, stating that he plans to have U.S. energy majors revitalize the Latin American country's failing oil industry.

Keeping all this future production within the U.S. orbit could impact more than just energy markets, however, as it would create a lot more petrodollars — a tool that has long helped the U.S. maintain its dominance in the global financial system. The term "petrodollar" was coined in the mid-1970s when the U.S. and Saudi Arabia agreed that global oil sales would be denominated in dollars, creating a new source of demand for the greenback and cementing U.S. strategic, economic, and political power.

The period between 2002 and mid-2008 — when oil almost reached \$150 a barrel — potentially marked the peak of the petrodollar's powers. At that time, the U.S. was the world's largest importer of crude, enabling oil-producing countries to amass huge trade surpluses, much of which was recycled back into the vast U.S. Treasury market. This put downward pressure on U.S. and therefore, global, bond yields and interest rates.

Fast forward to 2026, and the environment looks very different. Thanks to the shale oil revolution, the U.S. is now the world's largest oil producer and has been a net exporter since 2021.

Meanwhile, many producer nations like Saudi Arabia now use their oil-driven trade surpluses to plug their own widening domestic budget deficits. Moreover, the rise of China's economic power and new geopolitical rifts have reduced the percentage of the global oil trade denominated in dollars.

There are no official figures, but it is estimated that as much as 20% of the world's crude trade is now priced in currencies other than the dollar, such as the euro or Chinese yuan. The link between the dollar and oil has also shifted. Analysts at JP Morgan estimate that during the 2005-2013 period, a 1% appreciation of the U.S. trade-weighted dollar reduced the price of Brent crude by about 3%.

In the 2014-2022 period, a 1% rise in the dollar reduced the price of Brent by just 0.2%. And last year, the dollar and oil both fell, rather than moving in opposite directions.

So whether one is looking at oil producers' official holdings of Treasuries or oil revenues as a share of global capital flows, it is clear that the power of the petrodollar is on the decline.

Venezuela oil grab revives 'petrodollar' debate वेनेजुएला का तेल कब्ज़ा 'पेट्रोडॉलर' बहस को फिर से जीवित करता है

- There were likely many motives behind America's capture and arrest of Venezuelan President **Nicolas Maduro** on Saturday, but one little-discussed factor could be the **White House's concerns** about the **waning global prominence of the "petrodollar."**

शनिवार को वेनेजुएला के राष्ट्रपति **निकोलस माद्रो** की अमेरिका द्वारा गिरफ्तारी और हिरासत के पीछे कई संभावित कारण हो सकते हैं, लेकिन एक कम चर्चित कारण **व्हाइट हाउस की चिंता** हो सकती है, जो **"पेट्रोडॉलर"** की वैश्विक प्रासंगिकता के घटने से जुड़ी है

- **Venezuela's oil output** is currently modest at barely **1 million barrels per day**, but its reported reserves of around **300 billion barrels — 17% of the global stock — are the world's largest.**

वेनेजुएला का तेल उत्पादन वर्तमान में मात्र **10 लाख बैरल प्रतिदिन** है, लेकिन इसके लगभग **300 अरब बैरल — वैश्विक भंडार का 17% — के भंडार** दुनिया में सबसे बड़े हैं

- **President Donald Trump** has made it clear that the **U.S.** is interested in tapping this enormous potential, stating that he plans to have **U.S. energy majors** revitalize the Latin American country's **failing oil industry.**

राष्ट्रपति डोनाल्ड ट्रंप ने स्पष्ट किया है कि **अमेरिका** इस विशाल क्षमता का दोहन करने में रुचि रखता है और उन्होंने कहा है कि **अमेरिकी ऊर्जा कंपनियाँ** लैटिन अमेरिकी देश के **कमज़ोर पड़ चुके तेल उद्योग** को पुनर्जीवित करेंगी

- Keeping all this future production within the **U.S. orbit** could impact more than just **energy markets**, however, as it would create a lot more **petrodollars** — a tool that has long helped the **U.S.** maintain its dominance in the **global financial system.**

इस भविष्य के समस्त उत्पादन को **अमेरिकी प्रभाव क्षेत्र** में बनाए रखना केवल **ऊर्जा बाजारों** को ही नहीं, बल्कि बड़े पैमाने पर **पेट्रोडॉलर** पैदा करेगा — जो लंबे समय से **अमेरिका को वैश्विक वित्तीय प्रणाली** में प्रभुत्व बनाए रखने में मदद करता आया है

- The term **"petrodollar"** was coined in the **mid-1970s** when the **U.S. and Saudi Arabia** agreed that global oil sales would be denominated in **dollars**, creating a new source of demand for the **greenback** and cementing **U.S. strategic, economic, and political power.**

"पेट्रोडॉलर" शब्द **1970 के मध्य** में अस्तित्व में आया, जब **अमेरिका और सऊदी अरब** ने सहमति की कि वैश्विक तेल बिक्री **डॉलर** में होगी, जिससे **डॉलर** की मांग बढ़ी और **अमेरिकी रणनीतिक, आर्थिक और राजनीतिक शक्ति** मज़बूत हुई

- The period between **2002 and mid-2008** — when oil almost reached **\$150 a barrel** — potentially marked the **peak of the petrodollar's powers.**

2002 से मध्य 2008 का दौर — जब तेल लगभग **150 डॉलर प्रति बैरल** तक पहुँच गया — संभवतः **पेट्रोडॉलर की शक्ति का शिखर** था

- At that time, the **U.S.** was the world's **largest importer of crude**, enabling oil-producing countries to amass huge **trade surpluses**, much of which was recycled back into the vast **U.S. Treasury market.**

उस समय **अमेरिका** कच्चे तेल का **दुनिया का सबसे बड़ा आयातक** था, जिससे तेल उत्पादक देशों को विशाल **व्यापार अधिशेष** प्राप्त हुए, जिनका बड़ा हिस्सा **अमेरिकी ट्रेज़री बाज़ार** में वापस निवेश हुआ

- This put downward pressure on the U.S. and therefore, **global bond yields and interest rates.**

इससे **अमेरिकी और परिणामस्वरूप वैश्विक बॉन्ड यील्ड और ब्याज दरों** पर दबाव पड़ा



- Fast forward to **2026**, and the environment looks very **different**.
2026 तक आते-आते परिदृश्य काफ़ी **अलग** दिखाई देता है
- Thanks to the **shale oil revolution**, the **U.S. is now the world's largest oil producer and has been a net exporter since 2021**.
शेल ऑयल क्रांति के कारण **अमेरिका** अब दुनिया का **सबसे बड़ा तेल उत्पादक** है और **2021 से शुद्ध निर्यातक** बन चुका है
- Meanwhile, many producer nations like **Saudi Arabia** now use their oil-driven trade surpluses to plug their own widening **domestic budget deficit**.
इस बीच, **सऊदी अरब** जैसे कई उत्पादक देश अपने तेल-आधारित व्यापार अधिशेष का उपयोग बढ़ते **घरेलू बजट घाटे** को पाटने में कर रहे हैं
- Moreover, the rise of **China's economic power** and new **geopolitical rifts** have reduced the percentage of the global oil trade denominated in **dollars**.
इसके अलावा, **चीन की आर्थिक शक्ति** के उभार और नए **भू-राजनीतिक विभाजन** ने **डॉलर** में होने वाले वैश्विक तेल व्यापार का प्रतिशत घटा दिया है
- There are no **official figures**, but **it is estimated that as much as 20% of the world's crude trade is now priced in currencies other than the dollar, such as the euro or Chinese yuan**.
कोई **आधिकारिक आँकड़े** नहीं हैं, लेकिन अनुमान है कि दुनिया के कच्चे तेल व्यापार का लगभग **20%** अब **डॉलर** के अलावा **यूरो** या **चीनी युआन** जैसी मुद्राओं में होता है
- The link between the **dollar and oil** has also shifted.
डॉलर और तेल के बीच का संबंध भी बदल गया है
- Analysts at **JP Morgan** estimate that during the **2005-2013** period, a **1% appreciation of the U.S. trade-weighted dollar** reduced the price of **Brent crude** by about **3%**.
जेपी मॉर्गन के विश्लेषकों के अनुसार, **2005-2013** के दौरान **अमेरिकी ट्रेड-वेटेड डॉलर** में **1%** वृद्धि से **ब्रेंट कच्चे तेल** की कीमत लगभग **3%** घट जाती थी
- **In the 2014-2022 period, a 1% rise in the dollar reduced the price of Brent by just 0.2%**.
2014-2022 की अवधि में डॉलर में **1%** वृद्धि से **ब्रेंट** की कीमत केवल **0.2%** घटी
- And last year, the **dollar and oil** both fell, rather than moving in **opposite directions**.
और पिछले वर्ष **डॉलर और तेल** दोनों गिरे, बजाय इसके कि वे **विपरीत दिशाओं** में चलते
- So whether one is looking at oil producers' **social holdings of Treasuries** or oil revenues as a share of **global capital flows**, it is clear that the power of the **petrodollar** is on the **decline**.
इसलिए चाहे तेल उत्पादकों की **ट्रेज़री में आधिकारिक हिस्सेदारी** देखी जाए या **वैश्विक पूंजी प्रवाह** में तेल राजस्व की हिस्सेदारी, यह स्पष्ट है कि **पेट्रोडॉलर** की शक्ति **घट रही है**

GS Paper III: Economy,	
TOPICS COVERED	08 January 2026
1.	Govt. pegs real GDP growth at 7.4% amid concerns over tariffs सरकार ने टैरिफ़ को लेकर चिंताओं के बीच वास्तविक जीडीपी वृद्धि 7.4% आंकी
2.	Kashmir and H.P. apple growers fear a flood of cheap New Zealand imports if duty is cut under trade deal व्यापार समझौते के तहत शुल्क घटने पर कश्मीर और हिमाचल प्रदेश के सेब उत्पादकों को न्यूज़ीलैंड से सस्ते आयात की बाढ़ का डर
3.	Congress ages bid to 'privatize forest management' after Ministry circular मंत्रालयी परिपत्र के बाद 'वन प्रबंधन के निजीकरण' की कोशिश का कांग्रेस ने आरोप लगाया
4.	How every ₹100 is spent by Indian households भारतीय परिवार हर ₹100 कैसे खर्च करते हैं



Govt. pegs real GDP growth at 7.4% amid concerns over tariffs

Estimate for next fiscal comes with uncertainties and 50% U.S. tariffs hitting labour-intensive sectors; with Q1 and Q2 growing at 7.8% and 8.2%, second half will see growth slow to 6.8%; consumer spending to grow at 7% slower than last year

GS III: Economy

T.C.A. Sharad Raghavan
NEW DELHI

The Union government has estimated that real growth in the Gross Domestic Product (GDP) of the country will stand at 7.4% in the current financial year 2025-26, up from 6.5% recorded the previous year.

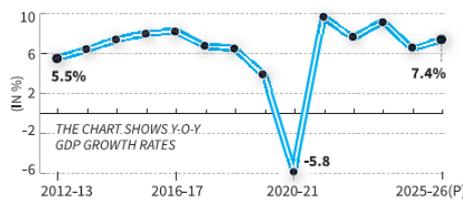
In the First Advance Estimates (FAE) of GDP for 2025-26, released by the Ministry of Statistics and Programme Implementation on Wednesday, the government said that nominal growth for the year would be 8%.

The FAE for any year is important as it forms the basis for various calculations and ratios used in preparing the Union Budget.

The First Advance Esti-

GDP trajectory

Real GDP is estimated to attain a level of ₹201.90 lakh crore in FY26, registering a growth rate of 7.4% compared to FY25



mates, and the Second Advance Estimates, which will be released on February 27, are forecasts of the full year's growth based on data available up to that point. The Provisional Estimates for 2025-26, based on the full-year's data, will be released on May 30.

Based on the Centre's assessment that the full

year's growth would be 7.4%, and the fact that Q1 and Q2 saw 7.8% and 8.2% growth respectively, the second half of the year would see average growth slow to 6.8%.

Braving headwinds

In December, the Reserve Bank of India had said that GDP growth in 2025-26

would be 7.3%, with Q3 growing at 7% and Q4 at 6.5%.

These projections come at a time when India's economy is facing several headwinds. The 50% tariff levied by the U.S. on imports from India has hit several labour-intensive sectors such as apparel, textiles, and engineering goods. The government has tried to boost consumer demand through both direct tax and indirect tax rate cuts, but the data shows it nevertheless expects Private Final Consumption Expenditure, a metric that captures consumer spending, to grow at 7% in 2025-26, marginally slower than the 7.2% recorded last year.

The mining and quarrying sector is estimated to contract in 2025-26 by

0.7%, as compared to a growth of 2.7% the previous year.

The tertiary sector, which comprises the services sectors, is expected to see growth quicken to 9.1% in 2025-26 from 7.2% in 2024-25. Within this, the 'financial, real estate and profession services', and the 'public administration, defence, and other services' sub-groupings are both expected to grow at 9.9% in 2025-26.

The 'trade, hotels, transport and communication' category is expected to grow at a relatively slower 7.5% in 2025-26, although this is faster than the 6.1% seen in 2024-25.

Gross Fixed Capital Formation, on the other hand, is expected to grow at 7.8% in 2025-26, faster than the 7.1% seen in 2024-25.

Govt. pegs real GDP growth at 7.4% amid concerns over tariffs

सरकार ने टैरिफ़ को लेकर चिंताओं के बीच वास्तविक जीडीपी वृद्धि 7.4% आंकी

- Estimate for next scale comes with uncertainties and 50% U.S. tar is hitting labour-intensive sectors; with Q1 and Q2 growing at 7.8% and 8.2%, second half will see growth slow to 6.8%; consumer spending to grow at 7% slower than last year

अगले वित्तीय वर्ष का अनुमान अनिश्चितताओं के साथ आया है और 50% अमेरिकी टैरिफ़ ने श्रम-प्रधान क्षेत्रों को प्रभावित किया है; Q1 और Q2 में क्रमशः 7.8% और 8.2% की वृद्धि के साथ, वर्ष के दूसरे हिस्से में वृद्धि धीमी होकर 6.8% रहने की संभावना है; उपभोक्ता खर्च 7% की दर से बढ़ेगा, जो पिछले वर्ष से धीमा है

- The Union government has estimated that real growth in the Gross Domestic Product (GDP) of the country will stand at 7.4% in the current financial year 2025-26, up from 6.5% recorded the previous year.

केंद्र सरकार ने अनुमान लगाया है कि देश के सकल घरेलू उत्पाद (GDP) में वास्तविक वृद्धि चालू वित्तीय वर्ष 2025-26 में 7.4% रहेगी, जो पिछले वर्ष दर्ज 6.5% से अधिक है।

- In the First Advance Estimates (FAE) of GDP for 2025-26, released by the Ministry of Statistics and Programme Implementation on Wednesday, the government said that nominal growth for the year would be 8%.

बुधवार को सांख्यिकी और कार्यक्रम कार्यान्वयन मंत्रालय द्वारा जारी 2025-26 के प्रथम अग्रिम अनुमान (FAE) में सरकार ने कहा कि वर्ष के लिए नाममात्र वृद्धि 8% होगी।

- The FAE for any year is important as it forms the basis for various calculations and ratios used in preparing the Union Budget.

किसी भी वर्ष के लिए FAE महत्वपूर्ण होता है क्योंकि यह केंद्रीय बजट तैयार करने में उपयोग होने वाली विभिन्न गणनाओं और अनुपातों का आधार बनता है।



- The **First Advance Estimates**, and the **Second Advance Estimates**, which will be released on **February 27**, are forecasts of the full year's growth based on data available up to that point.
प्रथम अग्रिम अनुमान और द्वितीय अग्रिम अनुमान, जो 27 फरवरी को जारी किए जाएंगे, उस समय तक उपलब्ध आंकड़ों के आधार पर पूरे वर्ष की वृद्धि का पूर्वानुमान होते हैं।
- The **Provisional Estimates for 2025-26**, based on the full-year's data, will be released on **May 30**.
- The **50% tariff** levied by the **U.S.** on imports from India has hit several labour-intensive sectors such as **apparel, textiles, and engineering goods**.
- The **mining and quarrying sector** is estimated to contract in **2025-26** by **0.7%**, as compared to a growth of **2.7%** the previous year.
- The **tertiary sector**, which comprises the services sectors, is expected to see growth quicken to **9.1%** in **2025-26** from **7.2%** in **2024-25**.
- Within this, the **'financial, real estate and profession services'**, and the **'public administration, defence, and other services'** sub-groupings are both expected to grow at **9.9%** in **2025-26**.
इसके भीतर, 'वित्तीय, रियल एस्टेट और पेशेवर सेवाएं' तथा 'सार्वजनिक प्रशासन, रक्षा और अन्य सेवाएं' उप-समूहों में 2025-26 में 9.9% की वृद्धि होने की उम्मीद है।
- The **'trade, hotels, transport and communication'** category is expected to grow at a relatively slower **7.5%** in **2025-26**, although this is faster than the **6.1%** seen in **2024-25**.
'व्यापार, होटल, परिवहन और संचार' श्रेणी के 2025-26 में अपेक्षाकृत धीमी 7.5% की दर से बढ़ने की संभावना है, हालांकि यह 2024-25 में देखी गई 6.1% की तुलना में तेज़ है।
- **Gross Fixed Capital Formation**, on the other hand, is expected to grow at **7.8%** in **2025-26**, faster than the **7.1%** seen in **2024-25**.
दूसरी ओर, सकल स्थिर पूंजी निर्माण के 2025-26 में 7.8% की दर से बढ़ने की उम्मीद है, जो 2024-25 में दर्ज 7.1% से अधिक है।

Kashmir and H.P. apple growers fear a flood of cheap New Zealand imports if duty is cut under trade deal

GS III: Economy

**Peerzada Ashiq
Vikas Vasudeva**
SRINAGAR/SHIMLA

Apple growers in Kashmir and Himachal Pradesh are presently beset by the prospect of imported produce from New Zealand flooding the market once duties are reduced as part of a new **free trade agreement (FTA)** between the two countries.

"Indian farmers rely on controlled-atmosphere cold storage to sell apples during the off-season, when they earn prices that sustain their families for the entire year. With reduced import duty, fresh New Zealand apples will enter Indian markets at lower prices, directly undercutting Indian apples



In Kashmir, 15 lakh families are associated with the apple trade, and it generates ₹30,000 cr. annually. Himachal produces apples worth ₹5,000-6,000 cr. annually, engaging over 1.5 lakh families. FILE PHOTO

stored in cold facilities," Izhan Javed, an apple dealer and spokesperson of the J&K Fruits and Vegetables Processing and Integrated Cold Chain Association, told *The Hindu*.

Traders fear that the agreement, which proposes to reduce the import du-

ty from 50% to 25%, could hit apples stored for the off-season trade hard. There are presently 397.08 lakh metric tonnes of apples in 92 cold storages across Kashmir.

"Over the last decade, farmers and industry have invested heavily in cold

storage infrastructure. The FTA threatens to make these investments economically unviable, endangering the entire post-harvest ecosystem built with public and private capital. The trade deal has the potential to destroy off-season price stability and push farmers back into distress sales," Mr. Javed said.

Higher productivity

Specifically, the Gala variety of apples introduced to orchards in Kashmir recently will be the first to take a hit. "India has only recently begun shifting to international apple varieties such as Gala. New Zealand has been producing these varieties for over 50 years, with 8-9 times higher productivity and much

lower costs," Mr. Javed added.

In Kashmir, 15 lakh families are associated with the apple trade, and it generates ₹30,000 crore annually.

Flooding of the market with cheap imports is a common refrain amongst apple growers in Himachal Pradesh too, which produces apples worth ₹5,000-6,000 crore annually and engages over 1.5 lakh families.

Kuldeep Singh Rathore, Congress MLA from Theog constituency in Shimla district, expressed alarm over the import duty issue, noting that implementing the FTA with New Zealand in its current form would establish a perilous precedent.

Kashmir and H.P. apple growers fear a flood of cheap New Zealand imports if duty is cut under trade deal



व्यापार समझौते के तहत शुल्क घटने पर कश्मीर और हिमाचल प्रदेश के सेब उत्पादकों को न्यूज़ीलैंड से सस्ते आयात की बाढ़ का डर

- Apple growers in **Kashmir** and **Himachal Pradesh** are presently beset by the prospect of imported produce from **New Zealand** flooding the market once **duties are reduced** as part of a new **free trade agreement (FTA)** between the two countries.
- Traders fear that the agreement, which proposes to **reduce the import duty from 50% to 25%**, could hit apples stored for the **off-season trade** hard.
- Specifically, the **Gala variety** of apples introduced to orchards in **Kashmir** recently will be the **first to take a hit**.
विशेष रूप से, हाल ही में **कश्मीर** के बागानों में शुरू की गई **गाला किस्म** के सेब सबसे पहले प्रभावित होंगे।
- “India has only recently begun shifting to **international apple varieties** such as **Gala**. **New Zealand** has been producing these varieties for over **50 years**, with **8–9 times higher productivity** and much **lower costs**,” **Mr. Javed** added.
“भारत ने हाल ही में **गाला** जैसी **अंतरराष्ट्रीय सेब किस्मों** की ओर रुख किया है। **न्यूज़ीलैंड** इन किस्मों का **50 वर्षों** से उत्पादन कर रहा है, जहां **8–9 गुना अधिक उत्पादकता** और कहीं **कम लागत** है,” **जावेद** ने जोड़ा।
- In **Kashmir**, **15 lakh families** are associated with the apple trade, and it generates **₹30,000 crore annually**.
कश्मीर में **15 लाख परिवार** सेब व्यापार से जुड़े हैं, और इससे हर साल **₹30,000 करोड़** का कारोबार होता है।
- Flooding of the market with **cheap imports** is a common refrain amongst apple growers in **Himachal Pradesh** too, which produces apples worth **₹5,000–6,000 crore annually** and engages over **1.5 lakh families**.

PATRIOTIC IAS



Centre seeks comments on draft Pesticides Bill

GS III: Economy
Press Trust of India
NEW DELHI

The Agriculture Ministry on Wednesday released the draft Pesticides Management Bill, 2025, seeking public comments on the legislation that aims at replacing the 57-year-old Insecticides Act, 1968, and the Insecticides Rules, 1971, with enhanced penalties for violations. The Ministry has invited feedback from all stakeholders by February 4, 2026, to refine the legislation before it is introduced in Parliament.

The proposed farmer-centric legislation introduces several reform measures.

The Bill incorporates digital methods and technology to streamline processes while imposing stricter controls on spurious pesticides through higher penalties. Key features include mandatory accreditation of testing laboratories to ensure quality pesticides reach farmers, and provisions for compounding of offences with enhanced penalties to be defined by State-level authorities.

Centre seeks comments on draft Pesticides Bill केंद्र ने मसौदा कीटनाशक विधेयक पर टिप्पणियाँ मांगीं

- The Agriculture Ministry on Wednesday released the draft Pesticides Management Bill, 2025, seeking public comments on the legislation that aims at replacing the 57-year-old Insecticides Act, 1968, and the Insecticides Rules, 1971, with enhanced penalties for violations.
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How every ₹100 is spent by Indian households

Indians are shifting from subsistence needs to aspirational and service-oriented spending

GS III: Economy

DATA POINT

K. Chandrasekar

The Household Consumption Expenditure Survey (HCES) by the Ministry of Statistics and Programme Implementation (MoS&PI) captures spending pattern of Indian households across various consumption categories. Conducted every five years, the HCES provides granular estimates of Monthly Per Capita Expenditure (MPCE) for both rural and urban populations, covering a wide range of goods and services.

The survey rounds for 2022-23 and 2023-24 represent the first comprehensive update to MPCE data in over a decade, offering valuable insights into India's shifting consumption landscape. These findings are central to revising poverty estimates, informing social sector policy, and understanding the lived realities of India's expanding middle-income population.

This article examines long-term MPCE trends from 1999-2000 to 2023-24, with a focus on six key expenditure categories. In this analysis, MPCE is expressed as the proportional expenditure on an item for every ₹100 of total spending.

Decline in MPCE share on food and beverages for both urban (from ₹48 to ₹39 per ₹100) and rural areas (from ₹59 to ₹47 per ₹100) confirms Engel's Law, which states that as real income rises, the proportion of income spent on food declines, even if absolute expenditure increases. (Chart 1)

Further, a fall in expenditure on cereals, alongside higher spending on fruits, eggs, fish, and processed foods, signals a shift from staple-heavy diets to more varied, protein-rich diets – albeit unequally.

Despite marginal increases, particularly in rural areas, spending on pan, tobacco, and other intoxicants remains a low share of MPCE, accounting for under ₹3.8 per ₹100 of spending. From a pu-

blic health perspective, the trend calls for targeted awareness programs in rural belts. (Chart 2)

The reduction in per capita fuel spending reflects policy successes, such as Saubhagya (rural electrification) and PM Ujjwala Yojana (LPG access). Lower urban spending may also reflect the use of energy-efficient appliances and access to reliable power supply. Modern fuels, in place of biomass or kerosene, improve quality of life and are an example of expenditure substitution. (Chart 3)

The decline in spending on clothing, bedding and footwear is moderate and consistent with the transition from need-based consumption to periodic discretionary spending. Rising competition, fast fashion, and lower textile prices may also have contributed. Rural India's slightly higher or similar spending may indicate seasonal dependence and growing aspirations. (Chart 4)

The urban housing rent share rose significantly (₹4.46 to ₹6.58 per ₹100), aligning with urbanisation, rental stress, and migration to metropolitan hubs. Rural rent remains minimal due to widespread self-owned housing, informal tenure, or rent-free arrangements. (Chart 5)

The miscellaneous category includes aspirational expenses such as health, education, conveyance, consumer services, and other similar costs. Its rising share, particularly in rural MPCE (from ₹21.87 to ₹35.82 per ₹100), reflects a broadening of the consumption basket. This trend aligns with inclusive growth, deeper digital penetration, and echoes improved reach and quality of both public and market-based services. (Chart 6)

Taken together, these trends reflect that society is undergoing an economic transition, with consumption patterns gradually shifting away from subsistence needs toward more aspirational and service-oriented spending.

The views expressed are personal.

Changing consumption basket

The data for the charts were sourced from the Ministry of Statistics and Programme Implementation (MoS&PI) for the period 1999-2000 to 2023-24.

The writer is a Deputy Director with the Ministry.



Chart 1: Monthly Per Capita Expenditure on Food & Beverages (₹ per ₹100)

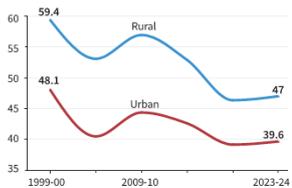


Chart 4: Monthly Per Capita Expenditure on Clothing, Bedding & Footwear (₹ per ₹100)

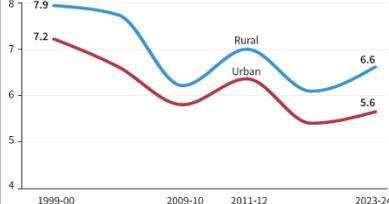


Chart 2: Monthly Per Capita Expenditure on Pan, Tobacco & Intoxicants (₹ per ₹100)

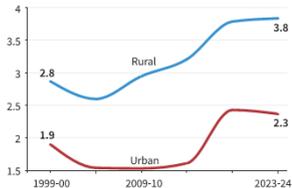


Chart 5: Monthly Per Capita Expenditure on Housing (Rent) (₹ per ₹100)

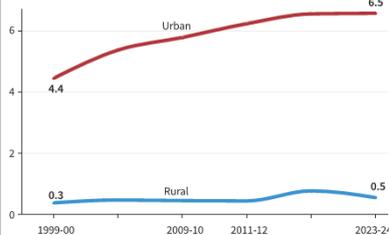


Chart 3: Monthly Per Capita Expenditure on Fuel & Light (₹ per ₹100)

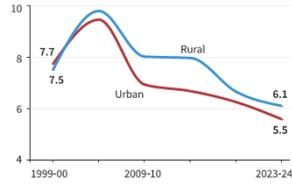
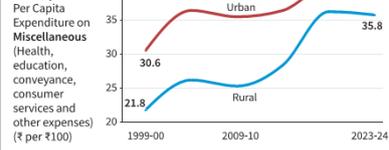


Chart 6: Monthly Per Capita Expenditure on Miscellaneous (Health, education, conveyance, consumer services and other expenses) (₹ per ₹100)



How every ₹100 is spent by Indian households भारतीय परिवार हर ₹100 कैसे खर्च करते हैं

- Indians are shifting from **subsistence needs** to **aspirational** and **service-oriented spending**.

भारतीय लोग जीविका आवश्यकताओं से हटकर आकांक्षात्मक और सेवा-आधारित खर्च की ओर बढ़ रहे हैं

Household Consumption Expenditure Survey (HCES)

घरेलू उपभोग व्यय सर्वेक्षण (HCES)

- The **Household Consumption Expenditure Survey (HCES)** by the Ministry of Statistics and Programme Implementation (**MoS&PI**) captures spending patterns of Indian households across various consumption categories.
- Conducted every **five years**, the HCES provides granular estimates of **Monthly Per Capita Expenditure (MPCE)** for both rural and urban populations, covering a wide range of goods and services.

हर पाँच वर्ष में किया जाने वाला यह सर्वेक्षण ग्रामीण और शहरी दोनों आबादी के लिए प्रति व्यक्ति मासिक व्यय (MPCE) का सूक्ष्म आकलन प्रस्तुत करता है, जिसमें वस्तुओं और सेवाओं की विस्तृत श्रृंखला शामिल है।



- The survey rounds for **2022-23** and **2023-24** represent the first comprehensive update to MPCE data in over a **decade**, offering valuable insights into India's shifting consumption landscape.
2022-23 और **2023-24** के सर्वेक्षण चरण एक **दशक से अधिक** समय में MPCE आँकड़ों का पहला व्यापक अद्यतन हैं, जो भारत के बदलते उपभोग परिदृश्य की महत्वपूर्ण झलक देते हैं।
- These findings are central to revising **poverty estimates**, informing **social sector policy**, and understanding the lived realities of India's expanding **middle-income population**.
- Decline in MPCE share on food and beverages** for both urban (from **₹48 to ₹39 per ₹100**) and rural areas (from **₹59 to ₹47 per ₹100**) confirms **Engel's Law**, which states that as real income rises, the proportion of income spent on food declines, even if absolute expenditure increases.
- Further, a fall in expenditure on **cereals**, alongside higher spending on **fruits, eggs, fish, and processed foods**, signals a shift from staple-heavy diets to more varied, **protein-rich diets**, albeit unequally.
- Despite marginal increases, particularly in rural areas, **spending on pan, tobacco, and other intoxicants** remains a low share of MPCE, accounting for under **₹3.8 per ₹100 of spending**.
- The **reduction in per capita fuel spending** reflects policy successes, such as **Saubhagya (rural electrification)** and **PM Ujjwala Yojana (LPG access)**.
प्रति व्यक्ति **ईंधन व्यय** में कमी **सौभाग्य योजना** (ग्रामीण विद्युतीकरण) और **प्रधानमंत्री उज्वला योजना** (एलपीजी उपलब्धता) जैसी नीतिगत सफलताओं को दर्शाती है।
- Lower urban spending may also reflect the use of **energy-efficient appliances** and access to **reliable power supply**.
- The **decline in spending on clothing, bedding and footwear** is moderate and consistent with the transition from need-based consumption to periodic **discretionary spending**.
- The **urban housing rent share** rose significantly (from **₹4.46 to ₹6.58 per ₹100**), aligning with **urbanisation, rental stress, and migration to metropolitan hubs**.
शहरी क्षेत्रों में **आवास किराया हिस्सेदारी** में उल्लेखनीय वृद्धि हुई (प्रति ₹100 पर **₹4.46 से ₹6.58**), जो **शहरीकरण**, किराये के दबाव और महानगरों की ओर पलायन से जुड़ी है।
- Rural rent remains minimal due to widespread self-owned housing, informal tenure, or rent-free arrangements**.
ग्रामीण क्षेत्रों में व्यापक **स्वामित्व वाले आवास**, अनौपचारिक स्वामित्व और बिना किराये की व्यवस्थाओं के कारण किराया न्यूनतम बना हुआ है।

Miscellaneous expenditure विविध व्यय

- The **miscellaneous category** includes aspirational expenses such as **health, education, conveyance, consumer services**, and other similar costs.
विविध श्रेणी में **स्वास्थ्य, शिक्षा, परिवहन, उपभोक्ता सेवाएँ** तथा इसी प्रकार के अन्य खर्च शामिल हैं।
- Its rising share, particularly in rural MPCE (from **₹21.87 to ₹35.82 per ₹100**), reflects a broadening of the **consumption basket**.
विशेष रूप से ग्रामीण MPCE में इसकी हिस्सेदारी का बढ़ना (प्रति ₹100 पर **₹21.87 से ₹35.82**) **उपभोग टोकरी** के विस्तार को दर्शाता है।
- This trend aligns with **inclusive growth**, deeper **digital penetration**, and improved reach and quality of both public and market-based services.
यह प्रवृत्ति **समावेशी विकास**, गहरी **डिजिटल पहुँच** और सार्वजनिक तथा बाज़ार-आधारित सेवाओं की बेहतर पहुँच व गुणवत्ता से मेल खाती है।

GS Paper III: S&T,

TOPICS COVERED

08 January 2026



1.	ISRO set to launch earth observation satellite on Jan. 12 इसरो 12 जनवरी को पृथ्वी अवलोकन उपग्रह लॉन्च करने के लिए तैयार
2.	Overseas scholars are sold on China's scientific clout, generous funding विदेशी शोधकर्ता चीन की वैज्ञानिक क्षमता और उदार फंडिंग से प्रभावित हैं

ISRO set to launch earth observation satellite on Jan. 12

GS III: S&T

The Hindu Bureau
BENGALURU

The Indian Space Research Organisation (ISRO) is scheduled to launch the **PSLV-C62/EOS-N1 Mission** on January 12.

The launch of the **earth observation satellite (EOS-N1)** along with other payloads will take place from the first launch pad of the **Satish Dhawan Space Centre** at Sriharikota in Andhra Pradesh.

Strategic use

EOS-N1 is an earth imaging satellite said to be built for **strategic purposes**. ISRO has not shared further details about the satellite. "The launch of PSLV-C62 Mission is scheduled on 12 January 2026 at 10:17 hrs IST," ISRO posted on X.

The **PSLV-C62/EOS-N1 mission** is the first launch for ISRO in 2026 and comes within a few days of successfully launching the

पर पोस्ट किया।

- The **PSLV-C62/EOS-N1 mission** is the first launch for ISRO in 2026 and comes within a few days of successfully launching the **U.S.'s BlueBird Block-2 satellite communication satellite** in low earth orbit on December 24 onboard the **LVM-3 launch vehicle**. **PSLV-C62/EOS-N1 मिशन 2026 में ISRO का पहला प्रक्षेपण है और यह 24 दिसंबर को LVM-3 प्रक्षेपण यान के माध्यम से निम्न पृथ्वी कक्षा में अमेरिका के BlueBird Block-2 संचार उपग्रह के सफल प्रक्षेपण के कुछ दिनों बाद आ रहा है।**

Post glitch

तकनीकी गड़बड़ी के बाद

U.S.'s BlueBird Block-2 satellite communication satellite in low earth orbit on December 24 onboard the **LVM-3 launch vehicle**.

Post glitch

The launch of the **PSLV-C62/EOS-N1 mission** will be the 105th launch from Sriharikota.

It is also an important launch for the space agency as the **Polar Satellite Launch Vehicles (PSLV)**, which is ISRO's workhorse, had suffered a glitch during its previous attempt to launch a satellite.

On May 18, 2025, while ISRO attempted to launch the **EOS-09 satellite** aboard the **PSLV-C61** it could not accomplish the mission due to an observation in the third stage of the rocket.

PSLV-C62/EOS-N1 Mission will also launch payloads developed by start-up and academia from India and abroad.

ISRO set to launch earth observation satellite on Jan. 12

इसरो 12 जनवरी को पृथ्वी अवलोकन उपग्रह लॉन्च करने के लिए तैयार

• The Indian Space Research Organisation (ISRO) is scheduled to launch the **PSLV-C62/EOS-N1 Mission** on January 12.

भारतीय अंतरिक्ष अनुसंधान संगठन (ISRO) 12 जनवरी को PSLV-C62/EOS-N1 मिशन लॉन्च करने के लिए निर्धारित है।

• The launch of the **earth observation satellite (EOS-N1)** satellite along with other payloads will take place from the **first launch pad** of the **Satish Dhawan Space Centre** at **Sriharikota** in **Andhra Pradesh**.

अन्य पेलोड्स के साथ **पृथ्वी अवलोकन उपग्रह (EOS-N1)** का प्रक्षेपण आंध्र प्रदेश के श्रीहरिकोटा स्थित **सतीश धवन अंतरिक्ष केंद्र** के प्रथम लॉन्च पैड से होगा।

Strategic use

रणनीतिक उपयोग

• **EOS-N1** is an earth imaging satellite said to be built for **strategic purposes**. ISRO has not shared further details about the satellite.

EOS-N1 एक पृथ्वी इमेजिंग उपग्रह है जिसे **रणनीतिक उद्देश्यों** के लिए बनाया गया बताया गया है। **ISRO** ने उपग्रह के बारे में आगे कोई विवरण साझा नहीं किया है।

• "The launch of **PSLV-C62 Mission** is scheduled on **12 January 2026 at 10:17 hrs IST**," ISRO posted on X.

"**PSLV-C62 मिशन का प्रक्षेपण 12 जनवरी 2026 को सुबह 10:17 बजे IST निर्धारित है,**" ISRO ने X



- The launch of the **PSLV-C62/EOS-N1 mission** will be the **105th launch** from **Sriharikota**. **PSLV-C62/EOS-N1 मिशन** का प्रक्षेपण **श्रीहरिकोटा** से होने वाला **105वां प्रक्षेपण** होगा।
- It is also an important launch for the space agency as the **Polar Satellite Launch Vehicles (PSLV)**, which is **ISRO's workhorse**, had **suffered a glitch** during its previous attempt to launch a satellite.
यह अंतरिक्ष एजेंसी के लिए भी एक महत्वपूर्ण प्रक्षेपण है क्योंकि **पोलर सैटेलाइट लॉन्च व्हीकल (PSLV)**, जो **ISRO का वर्कहॉर्स** है, को पिछले प्रयास में **तकनीकी गड़बड़ी** का सामना करना पड़ा था।
- On **May 18, 2025**, while **ISRO** attempted to launch the **EOS-09 satellite** aboard the **PSLV-C61** it could not accomplish the mission due to an **observation in the third stage** of the rocket.
18 मई 2025 को, जब **ISRO** ने **PSLV-C61** के माध्यम से **EOS-09 उपग्रह** लॉन्च करने का प्रयास किया, तो रॉकेट के **तीसरे चरण में एक अवलोकन** के कारण मिशन पूरा नहीं हो सका।
- **PSLV-C62/EOS-N1 Mission** will also launch **payloads developed by startup and academia from India and abroad**.
PSLV-C62/EOS-N1 मिशन भारत और विदेश के **स्टार्टअप्स और शैक्षणिक संस्थानों** द्वारा विकसित **पेलोड्स** का भी प्रक्षेपण करेगा।

PATRIOTIC IAS



Overseas scholars are sold on China's scientific clout, generous funding

GS III: S&T
Agence France Presse

China's government has long made efforts to tempt top scientists from abroad, but researchers say its institutions themselves are increasingly attracting talent thanks to their generous funding and growing prestige.

State-backed initiatives like the Thousand Talents Plan have dangled fast-tracked hiring and bountiful grants to lure overseas experts in strategically important fields, as China and the United States vie for technological supremacy.

But academics said the country is becoming a popular destination even among those not targeted by Beijing, especially at the start of their careers.

"You hear about these amazing advanced labs and the government providing money for things like AI and quantum research," said Mejed Jebali, an artificial intelligence PhD candidate from Tunisia at Shanghai Jiao Tong University. "The scale of the research and how fast things get built is really amazing."

China's official enticements have typically targeted eminent researchers in science, technology, engineering and mathematics (STEM) fields that could help Beijing achieve its goal of becoming the global leader in technology and innovation.

There is no official database of foreign or returnee scientists moving to China, but at least 20 prominent STEM experts have done so in the past year, according to university and personal announcements reviewed.

They included cancer expert Feng Gensheng, who left a tenured University of California role for Shenzhen Bay Laboratory, and German medical scientist Roland Eils, now part-time at Shanghai's Fudan University.

"It appears that a significantly greater number of overseas scientists -- particularly those of Chinese origin -- have

China's reputation for academic prowess has become undeniable. Four of the top five leading research institutions in natural and health sciences in 2025 were Chinese

returned to work in China compared with around 10 years ago," said Futao Huang, a professor at Japan's Hiroshima University.

Academics cited access to rapidly developing industries in China's massive market as a draw.

Lingling Zhang, who joined the China Europe International Business School after two decades in the United States, told AFP she was drawn to more "pragmatic" research.

She said career considerations drove her decision more than the specific prospect of moving back to China.

"I actually have great access to a large number of entrepreneurs and business people," she said.

The pace of industrial development means more opportunities for "academically grounded but application-oriented research", said a materials scientist who moved to China from a European university, who asked to remain anonymous.

"The quality of papers produced by top Chinese institutions today is in no way inferior to that of leading US or European universities, and in some areas is highly competitive or even leading," he said.

China's reputation for academic prowess has become undeniable. Four of the top five leading research institutions in natural and health sciences in 2025 were Chinese, according to *Nature*.

That is a change from the past, when US and European institutions held sway.

"I wouldn't have done it 15 years ago," said Jason Chapman, a world expert on insect migration, on his recent long-term secondment to Nanjing Agricultural University. But in the last five years, "the funding, resources and support" available -- far more than overseas -- changed the calculus.

Overseas scholars are sold on China's scientific clout, generous funding विदेशी शोधकर्ता चीन की वैज्ञानिक क्षमता और उदार फंडिंग से प्रभावित हैं

China attracting global scientific talent

चीन वैश्विक वैज्ञानिक प्रतिभा को आकर्षित कर रहा है

China's government has long made efforts to tempt top scientists from abroad, but researchers say its institutions themselves are increasingly attracting talent thanks to their generous funding and growing prestige.

State-backed initiatives like the Thousand Talents Plan have dangled fast-tracked hiring and bountiful grants to lure overseas experts in strategically important fields, as China and the United States vie for technological supremacy.

"You hear about these amazing advanced labs and the government providing money for things like AI and quantum research," said Mejed Jebali, an artificial intelligence PhD candidate from Tunisia at Shanghai Jiao Tong University.

आप इन अद्भुत उन्नत प्रयोगशालाओं और सरकार द्वारा एआई तथा क्वांटम शोध

जैसे क्षेत्रों के लिए दिए जा रहे धन के बारे में सुनते हैं," ट्यूनीशिया से आए शंघाई

जियाओ टोंग विश्वविद्यालय के एआई पीएचडी शोधार्थी मेजेद जेबाली ने कहा।

- "The scale of the research and how fast things get built is really amazing."

"शोध का स्तर और चीजों के बनने की रफ्तार सचमुच अद्भुत है।"

- China's official enticements have typically targeted eminent researchers in science, technology, engineering and mathematics (STEM) fields that could help Beijing achieve its goal of becoming the global leader in technology and innovation.

चीन की आधिकारिक प्रलोभन योजनाएँ आम तौर पर विज्ञान, प्रौद्योगिकी, इंजीनियरिंग और गणित (STEM) के प्रतिष्ठित शोधकर्ताओं को लक्षित करती रही हैं, ताकि बीजिंग प्रौद्योगिकी और नवाचार में वैश्विक नेता बनने का लक्ष्य हासिल कर सके।

- There is no official database of foreign or returnee scientists moving to China, but at least 20 prominent STEM experts have done so in the past year, according to university and personal announcements reviewed.

चीन जाने वाले विदेशी या लौटने वाले वैज्ञानिकों का कोई आधिकारिक डेटाबेस नहीं है, लेकिन विश्वविद्यालयों और व्यक्तिगत घोषणाओं के अनुसार पिछले एक वर्ष में कम से कम 20 प्रमुख STEM विशेषज्ञ वहाँ गए हैं।

- They included cancer expert Feng Gensheng, who left a tenured University of California role for Shenzhen Bay Laboratory, and German medical scientist Roland Eils, now part-time at Shanghai's Fudan University.



इनमें कैसर विशेषज्ञ फेंग गेंशेंग शामिल हैं, जिन्होंने यूनिवर्सिटी ऑफ कैलिफ़ोर्निया की स्थायी नौकरी छोड़कर शेन्जेन बे लैबोरेटरी जॉइन की, और जर्मन चिकित्सा वैज्ञानिक रोलांड आइल्स, जो अब शंघाई की फुडान यूनिवर्सिटी में अंशकालिक हैं।

- "It appears that a **significantly greater number** of overseas scientists — particularly those of **Chinese origin** — have returned to work in China compared with around **10 years ago**," said **Futao Huang**, a professor at **Japan's Hiroshima University**.
- **The pace of industrial development means more opportunities for "academically grounded but application-oriented research"**, said a **materials scientist** who moved to China from a **European university**, who asked to remain anonymous.
औद्योगिक विकास की तेज़ रफ़्तार का मतलब है "अकादमिक रूप से मज़बूत लेकिन अनुप्रयोग-उन्मुख शोध" के लिए ज़्यादा अवसर, ऐसा एक मटीरियल साइंटिस्ट ने कहा जो एक यूरोपीय विश्वविद्यालय से चीन आया और गुमनाम रहना चाहता था।
- "The quality of papers produced by **top Chinese institutions** today is in no way inferior to that of **leading US or European universities**, and in some areas is highly **competitive or even leading**," he said.
"आज शीर्ष चीनी संस्थानों द्वारा प्रकाशित शोधपत्रों की गुणवत्ता अमेरिका या यूरोप की अग्रणी यूनिवर्सिटियों से किसी भी तरह कम नहीं है, और कुछ क्षेत्रों में तो यह बेहद प्रतिस्पर्धी या यहाँ तक कि नेतृत्वकारी है," उन्होंने कहा।
- China's reputation for **academic prowess** has become undeniable.
शैक्षणिक क्षमता के लिए चीन की प्रतिष्ठा अब निर्विवाद हो चुकी है।
- **Four of the top five leading research institutions in natural and health sciences in 2025 were Chinese**, according to **Nature**.
नेचर के अनुसार 2025 में प्राकृतिक और स्वास्थ्य विज्ञान के क्षेत्र में शीर्ष पाँच शोध संस्थानों में से चार चीनी थे।
- **That is a change from the past, when US and European institutions held sway.**
- **But in the last five years, "the funding, resources and support available — far more than overseas — changed the calculus."**
लेकिन पिछले पाँच वर्षों में "उपलब्ध वित्तपोषण, संसाधन और समर्थन — जो विदेशों से कहीं अधिक हैं — ने पूरा हिसाब-किताब बदल दिया।"

U.S. tariff pull on copper drains China warehouses

GS III: Economy

Reuters
LONDON

China's exports of refined copper surged to record levels last year as the world's top buyer found itself in unusual competition with the U.S. for spare metal.

The CME's U.S. copper contract continues to command a sizeable premium over the international price traded on the London Metal Exchange (LME) as the market prices in the potential for U.S. tariffs. A decision has been deferred until June this year.

The premium for U.S. delivery is sucking metal out of the global supply chain, with the ripple effect now emptying China's bonded warehouse zones.

China's outbound shipments jumped to 1,43,000 metric tons in November,



Metal matter: LME stocks of desirable brands for U.S. delivery, particularly Chilean metal, have been exhausted. REUTERS

bringing the year-to-date total to 6,98,500 tons, already an annual record.

The November tally included 57,700 tons headed to the U.S., all of it sourced from stocks held in bonded warehouses at Chinese ports such as Shanghai.

Refined copper was also dispatched in bulk to Euro-

pean destinations as the lingering tariff threat continues to fracture global trading patterns.

The blowout of the CME-LME arbitrage last year created an unprecedented opportunity for traders to profit by shipping physical copper to the U.S.

CME stocks of copper have mushroomed to over 4,50,000 tons, which is more than the combined inventory held by the LME and the Shanghai Futures Exchange.

LME stocks of desirable brands for U.S. delivery, particularly Chilean metal, have been exhausted. Chinese and Russian copper accounted for 95% of registered inventory at the end of November.

Attention has returned to what has been sitting in China's bonded warehouse zones, metal that has been physically unloaded but not yet cleared through customs for delivery to a mainland buyer.

It's the second time this bonded inventory has been raided.

China exported, or rather redirected, 1,20,000

tons of refined copper to the U.S. between February and July last year, when import tariffs seemed a racing certainty.

U.S. President Donald Trump's decision in July to go ahead with tariffs, but only on copper products rather than copper in refined form, appeared to kill the tariff trade.

But the CME premium has been widening again ever since as traders bet the tariff threat has only been deferred.

The November jump in shipments from Chinese ports to the United States is testament to the renewed lure of U.S. delivery.

China's port-side copper inventory is also leaving to plug gaps that have opened up elsewhere as traders strip the supply chain of brands of metal that can be

delivered against the CME contract to ensure a frictionless arbitrage trade.

November's outbound flows included 16,500 tons bound for Italy as well as smaller tonnages destined for Germany, Greece and Sweden.

Such has been the scramble to ship to the U.S. that availability has fallen and physical premiums have risen everywhere else.

Europe's biggest producer Aurubis has aggressively hiked its premium for term sales this year to \$315 from \$228 per ton over the LME basis price.

Chilean state producer Codelco is asking its European customers for \$325 per ton and its Chinese buyers a whopping \$350 per ton, reflecting trader competition for its brands.

U.S. tariff pull on copper drains China warehouses

अमेरिकी टैरिफ़ खिंचाव से चीन के गोदामों से तांबा बाहर निकल रहा है



- China's exports of **refined copper** surged to record levels last year as the world's top buyer found itself in unusual competition with the **U.S.** for spare metal.
दुनिया के सबसे बड़े खरीदार चीन के **परिष्कृत तांबे** के निर्यात में पिछले वर्ष रिकॉर्ड वृद्धि हुई, क्योंकि उसे अतिरिक्त धातु के लिए **अमेरिका** के साथ असामान्य प्रतिस्पर्धा का सामना करना पड़ा
- The **CME's U.S. copper contract** continues to command a sizable premium over the international price traded on the **London Metal Exchange (LME)** as the market prices in the potential for **U.S. tariffs**. A decision has been deferred until **June** this year.
सीएमई का अमेरिकी तांबा अनुबंध अंतरराष्ट्रीय **लंदन मेटल एक्सचेंज (LME)** पर कारोबार होने वाली कीमत से कहीं अधिक प्रीमियम पर बना हुआ है, क्योंकि बाज़ार **अमेरिकी टैरिफ़** की संभावना को आंक रहा है। निर्णय इस वर्ष **जून** तक टाल दिया गया है
- The premium for **U.S. delivery** is sucking metal out of the **global supply chain**, with the ripple effect now emptying **China's bonded warehouse zones**.
अमेरिकी डिलीवरी के लिए प्रीमियम **वैश्विक आपूर्ति शृंखला** से धातु को खींच रहा है, जिसका प्रभाव अब **चीन के बॉन्डेड वेयरहाउस ज़ोन** को खाली कर रहा है
- LME stocks** of desirable brands for **U.S. delivery**, particularly **Chilean metal**, have been exhausted. **Chinese and Russian copper** accounted for **95%** of registered inventory at the end of **November**.
- It's the second time this **bonded inventory** has been raided.
यह दूसरी बार है जब इस **बॉन्डेड इन्वेंट्री** पर हाथ डाला गया है
- But the **CME premium** has been widening again ever since as traders bet the **tariff threat** has only been **deferred**.
लेकिन इसके बाद से **सीएमई प्रीमियम** फिर बढ़ता जा रहा है क्योंकि व्यापारी मान रहे हैं कि **टैरिफ़ खतरा** केवल **टला** है
- Chilean state producer Codelco** is asking its **European customers** for **\$325 per ton** and its **Chinese buyers** a whopping **\$350 per ton**, reflecting **trader competition** for its brands.
चिली की सरकारी उत्पादक कोडेलको अपने **यूरोपीय ग्राहकों** से **\$325 प्रति टन** और अपने **चीनी खरीदारों** से भारी **\$350 प्रति टन** मांग रही है, जो उसके ब्रांडों के लिए **व्यापारियों की प्रतिस्पर्धा** को दर्शाता है

GS Paper III: Environment,	
TOPICS COVERED	08 January 2026
1. Congress ages bid to 'privatize forest management' after Ministry circular मंत्रालयी परिपत्र के बाद 'वन प्रबंधन के निजीकरण' की कोशिश का कांग्रेस ने आरोप लगाया	
2. Can private reserves restore wildlife and keep tourism gentle? क्या निजी रिज़र्व वन्यजीवों को पुनर्स्थापित कर सकते हैं और पर्यटन को सौम्य बनाए रख सकते हैं?	
3. India's progress on its climate targets जलवायु लक्ष्यों पर भारत की प्रगति	



Congress flags bid to 'privatise forest management' after Ministry circular

GS III: Environment

The Hindu Bureau
NEW DELHI

The Congress on Wednesday alleged that amendments made to the **Forest (Conservation) Act in 2023** had opened the door for the privatisation of forest management, days after the Ministry of Environment, Forest and Climate Change changed terms and conditions for the assignment of forest land on lease.

Congress general secretary and former Environment Minister Jairam Ramesh took to X to condemn the recent changes, alleging the move will facilitate leasing of forest land to private entities. "In August 2023, the Modi Government had bulldozed amendments to the **Forest (Conservation) Act, 1980** through Parliament. Apart from renaming this law as



The Congress has said that the move will facilitate leasing of forest land to private entities for plantations. FILE PHOTO

the **Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980**, these amendments had introduced far-reaching changes in the legal regime for the governance of forests in the country," Mr. Ramesh said. He further said it was pointed out at the time that the amendments had opened the door for the privatisation of forest management.

"This is exactly what has

happened – as evidenced from the circular issued by the Union Ministry of Environment, Forests, and Climate Change on Jan 2, 2026," he added.

As per the circular issued by the Ministry, the amendments in the **Forest (Conservation) Act in 2023** were based on recommendations of the Advisory Committee. The **new amendments assisted natu-**

ral regeneration, including afforestation and plantation, for purposes mutually agreed between the States/ Union Territories and government and non-government entities.

The circular allowed the States to devise an appropriate framework "for the utilisation of such plantations and for revenue-sharing thereof, on a case-to-case basis".

"Activities undertaken in accordance with the provisions of an approved Working Plan/Management Plan, applicable in such cases and under the supervision of the State Forest Department shall be deemed to constitute forestry activities and hence the requirements of Compensatory Afforestation and payment of Net Present Value shall not be applicable to such activities," the circular read.

Congress ages bid to 'privatize forest management' after Ministry circular मंत्रालयी परिपत्र के बाद 'वन प्रबंधन के निजीकरण' की कोशिश का कांग्रेस ने आरोप लगाया

- The **Congress** on Wednesday alleged that amendments made to the **Forest (Conservation) Act in 2023** had opened the door for the **privatization of forest management**, days after the **Ministry of Environment, Forest and Climate Change** changed terms and conditions for the assignment of **forest land on lease**
कांग्रेस ने बुधवार को आरोप लगाया कि **2023 में वन (संरक्षण) अधिनियम** में किए गए संशोधनों ने **वन प्रबंधन के निजीकरण** का रास्ता खोल दिया है, यह आरोप **पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय** द्वारा **वन भूमि को पट्टे पर देने** की शर्तों में बदलाव के कुछ दिन बाद लगाया गया
- **Congress general secretary** and former **Environment Minister Jairam Ramesh** took to X to condemn the recent changes, alleging the move will facilitate leasing of **forest land to private entities**
कांग्रेस महासचिव और पूर्व पर्यावरण मंत्री जयराम रमेश ने X पर हालिया बदलावों की निंदा करते हुए आरोप लगाया कि यह कदम **निजी संस्थाओं को वन भूमि पट्टे पर देने** को आसान बनाएगा
- "In **August 2023**, the **Modi Government** had bulldozed amendments to the **Forest (Conservation) Act, 1980** through **Parliament**
"अगस्त 2023 में मोदी सरकार ने संसद के माध्यम से **वन (संरक्षण) अधिनियम, 1980** में संशोधन बलपूर्वक पारित कराए
- Apart from renaming this law as the **Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980**, these amendments had introduced **far-reaching changes in the legal regime for the**



governance of forests in the country," Mr. Ramesh said

इस कानून का नाम बदलकर वन (संरक्षण एवं संवर्धन) अधिनियम, 1980 करने के अलावा, इन संशोधनों ने देश में वनों के शासन के कानूनी ढांचे में दूरगामी बदलाव किए," जयराम रमेश ने कहा

- He further said it was pointed out at the time that the amendments had opened the door for the **privatisation of forest management**
उन्होंने आगे कहा कि उस समय यह बात भी उठाई गई थी कि इन संशोधनों ने वन प्रबंधन के निजीकरण का रास्ता खोल दिया है
- "This is exactly what has happened — as evidenced from the **circular** issued by the **Union Ministry of Environment, Forests, and Climate Change** on **Jan 2, 2026**," he added
"यही वास्तव में हुआ है — जैसा कि **2 जनवरी 2026** को **केंद्रीय पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय** द्वारा जारी **परिपत्र** से स्पष्ट है," उन्होंने जोड़ा
- As per the **circular** issued by the **Ministry**, the amendments in the **Forest (Conservation) Act in 2023** were based on recommendations of the **Advisory Committee**
मंत्रालय द्वारा जारी **परिपत्र** के अनुसार, **2023 के वन (संरक्षण) अधिनियम** में किए गए संशोधन **सलाहकार समिति** की सिफारिशों पर आधारित थे
- The new amendments assisted **natural regeneration**, including **arestorement and plantation**, for purposes mutually agreed between the **States/Union Territories** and **government and non-government entities**
नए संशोधनों ने **प्राकृतिक पुनर्जनन** में सहायता की, जिसमें **वनीकरण और पौधारोपण** शामिल हैं, जिनका उद्देश्य **राज्यों/केंद्र शासित प्रदेशों** और **सरकारी व गैर-सरकारी संस्थाओं** के बीच आपसी सहमति से तय किया गया
- The **circular** allowed the **States** to devise an appropriate framework "for the **utilisation of such plantations** and for **revenue-sharing thereof**, on a **case-to-case basis**"
परिपत्र ने राज्यों को "ऐसे पौधारोपण के उपयोग और उससे होने वाले राजस्व के बंटवारे के लिए **मामला-दर-मामला** उपयुक्त ढांचा" तैयार करने की अनुमति दी
- "Activities undertaken in accordance with the provisions of an approved **Working Plan/Management Plan**, applicable in such cases and under the supervision of the **State Forest Department** shall be deemed to constitute **forestry activities** and hence the requirements of **Compensatory Representation** and payment of **Net Present Value** shall not be applicable to such activities," the **circular** read
"स्वीकृत **कार्य योजना/प्रबंधन योजना** के प्रावधानों के अनुरूप, ऐसे मामलों में और **राज्य वन विभाग** की निगरानी में की गई गतिविधियों को **वन गतिविधियाँ** माना जाएगा और इसलिए **क्षतिपूरक वनीकरण** तथा **नेट प्रेजेंट वैल्यू** के भुगतान की आवश्यकताएँ ऐसी गतिविधियों पर लागू नहीं होंगी," **परिपत्र** में कहा गया



Can private reserves restore wildlife and keep tourism gentle?

Private reserves are popular in Africa; in India, responsible private reserves are more about potential than reality; in dissecting how wildlife returned to Jabarkhet Nature Reserve and how it has balanced tourism needs with conservation, it is possible to trace a model for private reserves in India

ISSUE: Environment

Neha Sinha

"A pathway to the left leads up to a rather extensive plateau for the hills, and forms a very pleasant resort for picnics... There is plenty of room for a good foot-race, and the scenery around, from most points, magnificent. Ponies ... can go up all the way."

— Guide to Masuri, Landour, Dehra Dun, John Northam, 1884

A bird with a rufous body and a mohawk sings sweetly, the sound wafting over us. Its head is black, its body orange, but despite the colours, it merges seamlessly into the leaves around it. That is because the leaves are thick, their diversity giving them different colours. There are oaks, deodars, rhododendrons, and walnut trees, and on the ground, where the Rufous Sibia dives after finishing its warbles, there are nodding ferns and thick inches of leaf litter which no one has swept up. Above our heads, there are scythes in the sky: Himalayan griffon vultures soaring slowly, with all the time in the world.

When you think of wildlife tourism in India, the options are pre-determined. There are National Parks, where you enter in Gypsy cars, at stipulated times, and never get off. These are the most well-known kinds of wildlife tourism, but crowding of the star animal – such as a tiger or elephant – is not unheard of. Then there are trails and hides where you can walk as part of other guided tours, usually on community land.

This is usually for the hardcore wildlife-lover, out for a particular sighting of a rare bird. Could there also be a third option, where you can amble at your own pace, in restored woodland, and where wildlife always gets the first right of way, away from mass tourism? Could there, in essence, be picnics without trash, and could this be achieved without emptying one's pockets?

Abounding with wildlife

In 2025, the Jabarkhet Nature Reserve (JNR), near Mussoorie, turned ten years old. This is Uttarakhand's first privately owned and operated nature reserve, meant to conserve wildlife and habitat as a primary goal.

The 1907 Guide to Mussoorie describes the hills around Dehradun as abounding with wildlife:

"These hills are clad with thick forest composed chiefly of Sal (*Shorea robusta*) and Sain [this could potentially refer to the crocodile bark tree or the *Terminalia tomentosa*]. The pine grows on the higher crests, and they were the home of many wild animals; tigers, leopards, sloth-bears, hyenas, deer, pig and porcupine used to abound in the jungles."

In JNR, similar sightings are possible today: leopard, barking deer, goral, yellow-throated marten, leopard cat, jungle cat, black bear, porcupine, wild boar, red fox, jackal, black-naped hare, civet, and sambar. But this was not an easy journey.

Private reserves are popular in Africa. In India, however, with 'eco-tourism' labels being used in arbitrary ways, perhaps responsible private reserves are more about potential than reality. In dissecting how wildlife returned to JNR and how it has balanced tourism needs



Rufous sibia pictured against verdant foliage at the reserve. NEHA SINHA

with conservation, it is possible to trace a model for private reserves in India.

Slowing down the overuse

More than 40 years ago, alarmed by massive deforestation in the hills, the government called for a ban on tree-cutting above 1,000 metres in (then) Uttar Pradesh. In the 1960s, the Jain family, owners of the Jabarkhet Estate, created a working plan for the area with the forest department. The forest was divided into compartments, dead trees were logged, and new ones were planted. Over the years, even this was discontinued and the Estate lay unused and largely unmanaged.

In the intervening years, Jabarkhet, once described as a 'picnic' spot by Northam in 1889, became more and more crowded. Many different people used the Jabarkhet Estate then, to collect forest produce, as a recreational site, and also to hunt. In 2010, it was evident the area needed stewardship. "We removed 500 kg of garbage from the slopes. Three tonnes of the weed *Eupatorium* were removed," JNR co-founder Sejal Worah said. "Before we did this, in the intervening years, the forest was badly overused with little management. I was so saddened to see the place where I grew up strewn with rubbish."

If JNR's fortunes had to be turned around, it would both benefit as well as

Is it possible that you could stroll around at your own pace, in restored woodland, a place where wildlife gets the right of way, away from mass tourism? Could there, in essence, be picnics without trash, and could this be done without emptying one's pockets?

suffer from proximity to tourism-glutted Mussoorie. Mussoorie is so stuffed with hotels and "getaways" that it's easy to forget its name comes from its natural beauty, the red-berried masuri bush. The challenge then was to create a kind of tourism that didn't further take from the mountain, that didn't promise helpads, fake fountains and adventure sports, but a slower form of taking in the Himalayas.

And if it was to be eco-tourism, the benefits had to accrue to the local population. But this wasn't easy because of the locals' suspicion; they were used to seeing outsiders coming in and "developing" one natural area after another.

The reserve, which now offers affordable ticketed trails, started with selecting people from the neighbouring villages, training them to be guides, and employing them for restoration and maintenance work. This was new for the area, a combination of traditional skills of

deeply knowing the mountains and learning bird names in English.

"I didn't think my passion for wildlife could become a job. I want to do this always," Virendra Singh, a naturalist at JNR, said. His favourite wildlife memory is seeing a leopard cub sunning itself on a rock in JNR while the world shut down during the COVID-19 pandemic.

An important refuge

There might be a lot more to see, but this can only happen if we protect natural stands of habitat without shears or with artificial beautification. In 1848, malacologist and snail collector William Benson found a brown land snail (*Bradybaena radiciola*) in the slopes around Jabarkhet. Because JNR could be protected, it can also be studied. True to its Himalayan roots, the area has incredible diversity: insectivorous sunsheds, ground orchids, more than 40 species of ferns, and hundreds of species of fungi, dozens of grass species, over 300 types of flowers, and over 150 bird species in about 100 acres of land.

This is more significant when we realise that places known for their natural beauty, whether the Himalayas or the Aravallis, are increasingly being cut up for mining and other commercial projects.

In the Himalaya, widening roads for activities like tourism causes landslides every year. For the Aravallis, the Supreme Court recently accepted a definition of the hills that would have excluded geologically important slopes and ridges, paving the way for ways to use land that does not respect natural topographies or histories. This means, at the landscape level, every stand of natural habitat we can save will be an important stepping stone or refuge for wildlife.

Can we see a rise of private reserves in India where wildlife gets the right of way, and where natural history can return to the present?

(Neha Sinha is a conservation biologist and author of Wild Capital: Discovering Nature in Delhi (2026) nehabnhs@gmail.com)



A leopard cub sunning itself at the reserve. JABARKHET NATURE RESERVE

Can private reserves restore wildlife and keep tourism gentle?
क्या निजी रिज़र्व वन्यजीवों को पुनर्स्थापित कर सकते हैं और पर्यटन को सौम्य बनाए रख सकते हैं?



- There are **oaks, deodars, rhododendrons, and walnut trees**, and on the ground, where the **Rufous Sibia** dives after finishing its warbles, there are **nodding ferns** and thick inches of **leaf litter** which no one has swept up.
वहाँ ओक, देवदार, रोडोडेंड्रोन और अखरोट के पेड़ हैं, और ज़मीन पर, जहाँ रुफ़स सिबिया अपनी मधुर तान पूरी कर गोता लगाता है, वहाँ झुकी हुई फ़र्न और मोटी परतों में जमा सूखी पत्तियाँ हैं जिन्हें किसी ने साफ़ नहीं किया है।
- Above our heads, there are **scythes in the sky: Himalayan griffon vultures** soaring slowly, with all the time in the world.
हमारे सिर के ऊपर आकाश में दरांती जैसे पंख फैलाए हिमालयन ग्रिफ़ॉन गिद्ध धीरे-धीरे उड़ते रहते हैं, मानो उनके पास समय की कोई कमी न हो।
- When you think of **wildlife tourism in India**, the options are **pre-determined**.
जब आप भारत में वन्यजीव पर्यटन के बारे में सोचते हैं, तो विकल्प पहले से ही तय होते हैं।
- There are **safaris inside tiger reserves** or there are **National Parks**, where you enter in **Gypsy cars**, at **stipulated times**, and **never get off**.
या तो टाइगर रिज़र्व के भीतर सफ़ारी होती है या राष्ट्रीय उद्यानों में जाना होता है, जहाँ आप जिप्सी गाड़ियों में निर्धारित समय पर प्रवेश करते हैं और उतर नहीं सकते।
- These are the most **well-known** kinds of wildlife tourism, but **crowding of the star animal — such as a tiger or elephant — is not unheard of**.
- In **2025**, the **Jabarkhet Nature Reserve (JNR)**, near **Mussoorie**, turned **ten years old**.
2025 में, मसूरी के पास स्थित जबखेत नेचर रिज़र्व (JNR) ने अपने दस वर्ष पूरे किए।
- This is **Uttarakhand's first privately owned and operated nature reserve**, meant to **conserve wildlife and habitat as a primary goal**.
- "These hills are clad with thick forest composed chiefly of **Sal [Shorea robusta]** and **Sain [this could potentially refer to the crocodile bark tree or the Terminalia tomentosa]**. The **pine** grows on the higher crests, and they were the home of many wild animals; **tigers, leopards, sloth-bears, hyenas, deer, pig and porcupine** used to abound in the jungles."
"ये पहाड़ियाँ मुख्यतः साल [शोरिया रोबस्टा] और सैन [संभवतः क्रोकोडाइल बार्क ट्री या टर्मिनालिया टोमेंटोसा] से बने घने वनों से ढकी हैं। ऊँची चोटियों पर चीड़ उगती है, और ये कई जंगली जानवरों का घर थीं; बाघ, तेंदुए, स्लॉथ-भालू, लकड़बग्घे, हिरण, सूअर और साही जंगलों में प्रचुर मात्रा में पाए जाते थे।"
- In **JNR**, similar sightings are possible today: **leopard, barking deer, goral, yellow-throated marten, leopard cat, jungle cat, black bear, porcupine, wild boar, red fox, jackal, black-naped hare, civet, and sambar**. But this was not an **easy journey**.
JNR में आज भी ऐसे ही दर्शन संभव हैं: तेंदुआ, भौकने वाला हिरण, गोरल, पीले गले वाला मार्टेन, लेपर्ड कैट, जंगल कैट, काला भालू, साही, जंगली सूअर, लाल लोमड़ी, सियार, काली गर्दन वाला खरगोश, सिवेट, और सांभर। लेकिन यह सफ़र आसान नहीं था।
- **Private reserves are popular in Africa**.
- More than **40 years ago**, alarmed by massive deforestation in the hills, the **government called for a ban on tree-cutting above 1,000 metres in (then) Uttar Pradesh**.
40 वर्ष से भी पहले, पहाड़ियों में भारी वनों की कटाई से चिंतित होकर सरकार ने (तत्कालीन) उत्तर प्रदेश में 1,000 मीटर से ऊपर पेड़ों की कटाई पर प्रतिबंध लगाने का आह्वान किया।
- In the **1960s**, the **Jain family**, owners of the **Jabarkhet Estate**, created a working plan for the area with the **forest department**.
1960 के दशक में, जबखेत एस्टेट के मालिक जैन परिवार ने वन विभाग के साथ मिलकर इस क्षेत्र के लिए एक कार्य योजना बनाई।
- The forest was divided into **compartments**, **dead trees** were logged, and **new ones were planted**.
- **Mussoorie** is so stuffed with **hotels** and "getaways" that it's easy to forget its name comes from its **natural beauty**, the **red-berried masuri bush**.
- True to its **Himalayan roots**, the area has incredible **diversity: insectivorous sundews, ground orchids**, more than **40 species of ferns**, and **hundreds of species of fungi, dozens of grass species, over 300 types of flowers**, and over **150 bird species** in about **100 acres of land**.



India's progress on its climate targets

While the country has successfully reduced emissions intensity, and increased non-fossil power capacity, challenges remain in translating these achievements into absolute emissions reductions. The next few years will be critical in addressing these gaps and ensuring a sustainable future

GS III: Environment

ECONOMIC NOTES

Deepanshu Mohan
Nagappan Arun
Saksham Raj

There has been a lot of focus on the recent Aravalli judgment and its implications for mining operations across the green belt as well as the government's commitments regarding environmental standards and regulatory protection for ecologically sensitive areas.

In the Paris summit, India had committed to four quantified climate targets, grounded in the principle of "common but differentiated responsibilities" – a position that reflects how, historically, India's per capita emissions were fractions compared to emissions of other major countries like the U.S. (however, currently India is the world's third largest absolute emitter). The centrepiece of Prime Minister Modi's statement at the Paris summit was the pledge to reduce emissions intensity by 33-35% by 2030 (based on the 2005 baseline), coupled with commitments to enhance non-fossil power capacity to 40%, 175 GW of renewable energy, and 2.5-3 billion tonnes of carbon sequestration through forests.

Now, more than 10 years later, one needs to evaluate whether these promises have actually been delivered.

Incomplete decoupling

India's reduction in GDP emissions-intensity (greenhouse gases per unit of economic output) may appear to be a policy success. Using 2005 as baseline, emissions intensity decreased by approximately 36% by 2020, enabling India to meet its original 33-35% target well ahead of the 2030 deadline.

Three structural drivers explain this trajectory. First, the rapid expansion of non-fossil power capacity (solar, wind, hydro, and nuclear) lowered carbon intensity associated with harnessing electricity. By 2023, non-fossil capacity exceeded by approximately 43%, and it reached roughly 50% by mid-2025. Second, India's economic composition shifted toward lower-carbon services and digital sectors, resulting in a reduction in emissions per unit of GDP. Third, national efficiency programmes like Perform, Achieve and Trade (PAT) and UJALA curbed demand growth in industry and households; national assessments record measurable electricity savings and avoided emissions in FY2020-21.

However, intensity gains still coexist with persistently high absolute emissions. India's territorial greenhouse gas (GHG) emissions were approximately 2,959 MtCO_{2e} in 2020, and absolute emissions have remained high thereafter.

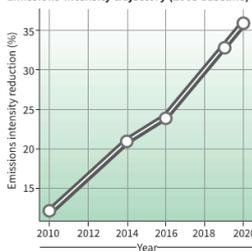
This phenomenon exists because of partial decoupling: GDP growth has outpaced emissions growth, so intensity has declined without an economy-wide absolute fall. This matters because national intensity averages mask sectoral divergence, as evidenced by the continued rise in emissions from the cement, steel, and transport sectors, even as the power sector's CO₂ growth moderated in 2024-25.

Analyses by Climate Transparency and the International Energy Agency show that India's rate of intensity decline exceeds that of many G-20 peers, but coal's large share keeps absolute per-kWh emissions high. For India's 2070 net-zero pledge to be credible, remaining intensity gains must be translated into absolute emissions reductions through a transparent coal phase-down timetable

Climate promises

While India has achieved meaningful progress on specific metrics, they also obscure fundamental problems. The intensity gains achieved coexist with rising absolute emissions, and renewable capacity expansion has not translated into a proportional share of generation due to the entrenched base-load of coal

Emissions-intensity trajectory (2005 baseline)



and industrial decarbonisation roadmaps.

Generation gap

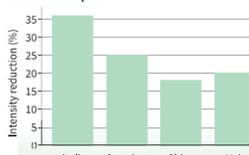
India's renewable capacity scale-up is dramatic, but it does not yet replace fossil base-load. Non-fossil capacity rose from -29.5% in 2015 to +51.4% by June 2025. Solar led the build-out (-2.8 GW in 2014 -110.9 GW by mid-2025), supported by tariff competition and domestic photovoltaic manufacturing expansion. Wind power increased more modestly (=21 GW to -51.3 GW over the same period) but has been constrained by land, grid-connection delays and state-level regulatory bottlenecks. Crucially, electricity generation lacks capacity – renewables supplied -22% of electricity in 2024-25 despite greater than 50% non-fossil capacity because of lower capacity factors and storage shortfalls; thermal (primarily coal) capacity remained -240 GW in mid-2025 and still provides base-load.

The 175 GW renewables target for 2022 was missed, and although a 500 GW 2030 ambition is technically possible, converting installed capacity into sustained generation and emissions reduction will require rapid scaling of storage, transmission upgrades and stronger policy delivery.

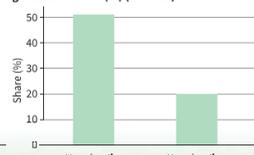
The renewable energy targets that India has set for itself, initially 40% non-fossil fuel capacity by 2030 and now 50% by 2030, are headline successes that mask a vital subtext: capacity and actual production differ sharply due to limitations in renewable integration and intermittency patterns. Non-fossil fuel capacity accounted for 51% of India's cumulative installed capacity of 495 GW as of June 2025, marking the achievement of the first commitment. But this is overshadowed by an essential reality that more than 70% of electricity production in India comes from coal, in spite of its comprising 51% non-fossil fuel capacity. The reason for this is that renewables operate at much shorter capacity compared to coal, as they produce intermittently on a solar and wind basis. In contrast, coal generates constant "base-load" electricity.

Storage is the major sticking point. The Central Electricity Authority has forecast a demand of 336 GWh of energy storage for the 2029-30 period. However, as of September 2025, only 500 MWh of battery energy storage capacity is

Comparative intensity trajectories: India versus selected G-20 peers



Installed non-fossil capacity (%) versus actual generation share (%) (2024-25)



operational.

Government driven programs such as the National Solar Mission, Solar Parks Scheme, UDAY, PM-KUSUM, and rooftop solar have successfully added 25 GW of renewable energy every year. However, the area of execution remains a challenge, as there is a delay in grid connectivity and limited land acquisition in the power sector. Although the pace of renewable energy in the Indian power sector has reached a groundbreaking level, the country's backbone remains the 253 GW of coal-based capacity.

Forests only on paper

The figure of 2.5-3.0 billion tonnes of CO₂ equivalent carbon sequestration by 2030, as pledged by India appears achievable in terms of numbers. The India State of Forest Report 2023 reveals that India has already sequestered 30.43 billion tonnes of CO₂ equivalents of total carbon stock, representing 2.29 billion tonnes of additional sequestration over the 2005 level, with only 0.2 billion tonnes remaining to achieve the target by 2030.

However, the official figures do not capture the definition's elasticity. The Forest Survey of India's definition of "forest cover" includes any land of more than one hectare with the overstorey 10% canopied, and includes eucalyptus monocultures and plantations of mango, tea, and roadside trees in addition to natural forests. Satellite imagery indicating that the country has 7,15,343 sq km of forest cover in 2023, with an increase of only 156 sq km from the previous census in 2021, confuses ecological performance with administrative designation.

Policy mechanisms indicate a friction in implementation. Under the Compensatory Afforestation Fund Act (2016), approximately ₹95,000 crore has been accumulated. However, there is unequal implementation, as States such as Delhi have been able to utilise only 23% of the allocated amount from 2019-20 to 2023-24. The Green India Mission Revised launched in June 2025 after a decade of 'moderate progress,' has proposed regenerating five million hectares through regional projects in the Aravallis, Western Ghats, and Himalayas. 'Plantations' are, however, equated to 'natural regeneration'.

Moreover, climate change is an added stress. While satellite evidence reveals leaf

index values that indicate "greening," net primary productivity, and actual carbon assimilation rate are challenged by warming and water stress, especially in the Western Ghats and northeastern parts of India. The country is likely to meet its "forest sink" target by 2030 through mechanisms that are plantation dominated and governance limited, prioritising carbon accounting over ecological restoration.

The road ahead

While India has achieved meaningful progress on specific metrics, they also obscure fundamental problems with climate action in India. The intensity gains achieved coexist with rising absolute emissions, and renewable capacity expansion has not translated into a proportional share of generation due to the entrenched base-load of coal that mask the actual ecological impact.

The transition path that lies ahead demands sustained effort in areas requiring systemic coordination and coordinated governance like the rapid scaling of battery storage to bridge the capacity generation gap, the development of a coal transition roadmap, reformed forest governance to ensure quality biodiversity outcomes alongside carbon target numbers, and increase in data transparency to track progress across sectoral and regional variations as mere technology and capital influx will now no longer suffice.

The upcoming five years present a critical window for India to accelerate renewable energy growth, resolve storage bottlenecks, and strengthen government coordination on grid connectivity and land acquisition.

In summation, India's performative standards may have broadly delivered on its quantified commitments. Still, the outcomes that matter most lie beyond headline metrics, in converting the now installed capacity into continued sustained generation and intensity gains into absolute emission 'moderation'.

Deepanshu Mohan is professor and dean, O.P. Jindal Global University and Director, Centre for New Economics Studies (CNES). He is a visiting professor at the London School of Economics and a visiting fellow with AMES, University of Oxford. Nagappan Arun and Saksham Raj are research analysts at CNES. With inputs from Simar Kaur and Anvita Tripathi.

THE GIST

Using 2005 as baseline, emissions intensity decreased by approximately 36% by 2020, enabling India to meet its original 33-35% target well ahead of the 2030 deadline. However, intensity gains still coexist with persistently high absolute emissions.

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India's progress on its climate targets जलवायु लक्ष्यों पर भारत की प्रगति

- In the **Paris summit**, India had committed to four **quantified climate targets**, grounded in the principle of “**common but differentiated responsibilities**” — a position that reflects how, historically, India's **per capita emissions** were fractions compared to emissions of other major countries like the **U.S.** (however, currently India is the world's **third largest absolute emitter**).
पेरिस शिखर सम्मेलन में भारत ने “साझी लेकिन विभेदित जिम्मेदारियाँ” के सिद्धांत पर आधारित चार मात्रात्मक जलवायु लक्ष्यों के लिए प्रतिबद्धता जताई थी, जो यह दर्शाता है कि ऐतिहासिक रूप से भारत का प्रति व्यक्ति उत्सर्जन अमेरिका जैसे प्रमुख देशों की तुलना में बहुत कम रहा है (हालाँकि वर्तमान में भारत दुनिया का तीसरा सबसे बड़ा कुल उत्सर्जक है)।
- The centrepiece of Prime Minister **Modi's** statement at the Paris summit was the pledge to **reduce emissions intensity by 33–35% by 2030** (based on the **2005 baseline**), coupled with commitments to enhance **non-fossil power capacity to 40%**, **175 GW of renewable energy**, and **2.5–3 billion tonnes of carbon sequestration** through forests.
पेरिस शिखर सम्मेलन में प्रधानमंत्री मोदी के वक्तव्य का केंद्र बिंदु उत्सर्जन तीव्रता को 2030 तक 33–35% घटाने का वादा था (2005 के आधार वर्ष पर), साथ ही गैर-जीवाश्म ऊर्जा क्षमता को 40% तक बढ़ाने, 175 गीगावाट नवीकरणीय ऊर्जा और वनों के माध्यम से 2.5–3 अरब टन कार्बन अवशोषण की प्रतिबद्धताएँ भी शामिल थीं।
- Now, more than **10 years later**, one needs to evaluate whether these **promises** have actually been delivered.
अब 10 वर्षों से अधिक समय बाद यह आकलन आवश्यक है कि ये वादे वास्तव में कितने पूरे हुए हैं।

Incomplete decoupling अधूरा डिकपलिंग

- India's reduction in **GDP emissions-intensity** (greenhouse gases per unit of economic output) may appear to be a **policy success**.
भारत में जीडीपी उत्सर्जन-तीव्रता में कमी (आर्थिक उत्पादन की प्रति इकाई ग्रीनहाउस गैसों) एक नीतिगत सफलता जैसी प्रतीत होती है।
- Using **2005 as baseline**, emissions intensity decreased by approximately **36% by 2020**, enabling India to meet its original **33–35% target** well ahead of the **2030 deadline**.
2005 को आधार वर्ष मानते हुए 2020 तक उत्सर्जन तीव्रता लगभग 36% घट गई, जिससे भारत ने 2030 की समयसीमा से काफी पहले अपना मूल 33–35% लक्ष्य हासिल कर लिया।
- Three **structural drivers** explain this trajectory.
इस प्रवृत्ति को तीन संरचनात्मक कारक समझाते हैं।
- First, the **rapid expansion of non-fossil power capacity** (solar, wind, hydro, and nuclear) lowered **carbon intensity** associated with electricity generation.
पहला, गैर-जीवाश्म ऊर्जा क्षमता (सौर, पवन, जल और परमाणु) के तीव्र विस्तार ने बिजली उत्पादन से जुड़ी कार्बन तीव्रता को कम किया।
- By **2023**, non-fossil capacity exceeded by approximately **43%**, and it reached roughly **50% by mid-2025**.
2023 तक गैर-जीवाश्म क्षमता लगभग 43% से अधिक हो गई और मध्य-2025 तक यह लगभग 50% तक पहुँच गई।
- Second, India's **economic composition** shifted toward lower-carbon services and digital sectors, resulting in a reduction in emissions per unit of GDP.
दूसरा, भारत की आर्थिक संरचना कम-कार्बन सेवा और डिजिटल क्षेत्रों की ओर बढ़ी, जिससे प्रति इकाई जीडीपी उत्सर्जन घटा।
- Third, **national efficiency programmes** like **Perform, Achieve and Trade (PAT)** and **UJALA** curbed demand growth in industry and households.
तीसरा, परफॉर्म, अचीव एंड ट्रेड (PAT) और उजाला जैसे राष्ट्रीय दक्षता कार्यक्रमों ने उद्योग और घरों में मांग वृद्धि को नियंत्रित किया।



- National assessments record measurable **electricity savings** and **avoided emissions** in **FY2020-21**.
राष्ट्रीय आकलनों में वित्त वर्ष 2020-21 में उल्लेखनीय बिजली बचत और रोके गए उत्सर्जन दर्ज किए गए हैं।
- However, intensity gains still coexist with persistently high **absolute emissions**.
हालाँकि तीव्रता में सुधार के साथ-साथ कुल उत्सर्जन अभी भी ऊँचा बना हुआ है।
- **India's territorial greenhouse gas (GHG) emissions** were approximately **2,959 MtCO₂e in 2020**, and absolute emissions have remained high thereafter.
- This matters because national intensity averages mask **sectoral divergence**, as evidenced by the continued **rise in emissions from the cement, steel, and transport sectors**, even as the power sector's CO₂ growth moderated in **2024-25**.
- Analyses by **Climate Transparency and the International Energy Agency** show that India's rate of **intensity decline** exceeds that of many **G-20 peers**, but **coal's large share keeps absolute per-kWh emissions high**.
क्लाइमेट ट्रांसपेरेंसी और इंटरनेशनल एनर्जी एजेंसी के विश्लेषण बताते हैं कि भारत में उत्सर्जन तीव्रता में गिरावट की दर कई G-20 देशों से अधिक है, लेकिन कोयले की बड़ी हिस्सेदारी प्रति यूनिट बिजली पर कुल उत्सर्जन को ऊँचा बनाए रखती है।
- For India's **2070 net-zero pledge** to be credible, remaining intensity gains must be translated into **absolute emissions reductions** through a transparent **coal phase-down timetable** and **industrial decarbonisation roadmaps**.
भारत की 2070 नेट-ज़ीरो प्रतिज्ञा को विश्वसनीय बनाने के लिए, शेष तीव्रता लाभों को कुल उत्सर्जन में वास्तविक कमी में बदलना होगा, जिसके लिए एक स्पष्ट कोयला चरणबद्ध समाप्ति समय-सारिणी और औद्योगिक डीकार्बनाइजेशन रोडमैप आवश्यक हैं।

Generation gap उत्पादन अंतर

- India's **renewable capacity scale-up** is dramatic, but it does not yet replace **fossil baseload**.
भारत में नवीकरणीय क्षमता का विस्तार तेज़ है, लेकिन यह अभी तक जीवाश्म ईंधन आधारित बेसलोड का विकल्प नहीं बन पाया है।
- **Non-fossil capacity** rose from **~29.5% in 2015** to **~51.4% by June 2025**.
गैर-जीवाश्म क्षमता 2015 में लगभग 29.5% से बढ़कर जून 2025 तक लगभग 51.4% हो गई।
- **Solar power** led the build-out, rising from **~2.8 GW in 2014** to **~110.9 GW by mid-2025**, supported by **tariff competition** and expansion of **domestic photovoltaic manufacturing**.
सौर ऊर्जा ने इस विस्तार का नेतृत्व किया, जो 2014 में लगभग 2.8 गीगावाट से बढ़कर मध्य-2025 तक लगभग 110.9 गीगावाट हो गई, जिसे टैरिफ प्रतिस्पर्धा और घरेलू फोटोवोल्टिक निर्माण के विस्तार का समर्थन मिला।
- **Wind power** increased more modestly, from **~21 GW to ~51.3 GW**, but has been constrained by **land availability, grid-connection delays, and state-level regulatory bottlenecks**.
पवन ऊर्जा में अपेक्षाकृत सीमित वृद्धि हुई, लगभग 21 गीगावाट से बढ़कर 51.3 गीगावाट, लेकिन इसे भूमि उपलब्धता, ग्रिड कनेक्शन में देरी और राज्य-स्तरीय नियामकीय बाधाओं ने सीमित किया।
- Crucially, electricity generation still lacks adequate capacity as **renewables supplied only ~22% of electricity in 2024-25**, despite over **50% non-fossil capacity**, due to **lower capacity factors and storage shortfalls**.
महत्वपूर्ण बात यह है कि बिजली उत्पादन में अभी भी पर्याप्त क्षमता नहीं है, क्योंकि 2024-25 में नवीकरणीय स्रोतों से केवल लगभग 22% बिजली मिली, जबकि गैर-जीवाश्म क्षमता 50% से अधिक है, जिसका कारण कम क्षमता गुणांक और भंडारण की कमी है।
- **Thermal capacity**, primarily coal-based, remained at **~240 GW in mid-2025** and still provides the bulk of **baseload power**.
मुख्यतः कोयले पर आधारित तापीय क्षमता मध्य-2025 में लगभग 240 गीगावाट बनी रही और अब भी अधिकांश बेसलोड बिजली प्रदान करती है।
- The **175 GW renewables target for 2022** was missed, and although the **500 GW target for 2030** is technically possible, converting installed capacity into **sustained generation and emissions reduction** will require rapid scaling of **storage, transmission upgrades, and**



stronger policy delivery.

2022 के लिए 175 गीगावाट नवीकरणीय लक्ष्य हासिल नहीं हो पाया, और यद्यपि 2030 का 500 गीगावाट लक्ष्य तकनीकी रूप से संभव है, लेकिन स्थापित क्षमता को लगातार उत्पादन और उत्सर्जन में कमी में बदलने के लिए भंडारण, प्रसारण उन्नयन और मज़बूत नीति कार्यान्वयन की आवश्यकता होगी।

- India's renewable energy targets, initially **40% non-fossil capacity by 2030** and now **50% by 2030**, are **headline successes** that mask a vital reality.
भारत के नवीकरणीय ऊर्जा लक्ष्य, पहले 2030 तक 40% गैर-जीवाश्म क्षमता और अब 2030 तक 50%, मुख्य उपलब्धियाँ हैं, लेकिन वे एक महत्वपूर्ण वास्तविकता को छुपाते हैं।
- Capacity and actual production differ sharply due to **integration limitations** and **intermittency patterns** of renewables.
क्षमता और वास्तविक उत्पादन में बड़ा अंतर है, जिसका कारण नवीकरणीय ऊर्जा के एकीकरण की सीमाएँ और अंतरालिक उत्पादन पैटर्न हैं।
- As of **June 2025**, non-fossil fuel capacity accounted for **51% of India's cumulative installed capacity of 495 GW**, achieving the first commitment.
जून 2025 तक, गैर-जीवाश्म ईंधन क्षमता भारत की कुल 495 गीगावाट स्थापित क्षमता का 51% थी, जिससे पहला लक्ष्य पूरा हुआ।
- Yet more than **70% of electricity production** still comes from coal, despite non-fossil capacity reaching **51%**.
फिर भी, 70% से अधिक बिजली उत्पादन अब भी कोयले से आता है, भले ही गैर-जीवाश्म क्षमता 51% तक पहुँच चुकी हो।
- This is because renewables operate at **shorter capacity factors**, producing power **intermittently** based on sun and wind, while coal provides **constant baseload electricity**.
ऐसा इसलिए है क्योंकि नवीकरणीय स्रोत कम क्षमता गुणांक पर चलते हैं और सूर्य व पवन पर आधारित अनियमित रूप से बिजली पैदा करते हैं, जबकि कोयला लगातार बेसलोड बिजली देता है।
- Storage is the major sticking point. The **Central Electricity Authority** has forecast a demand of **336 GWh of energy storage** for 2029-30.
भंडारण सबसे बड़ी चुनौती है। केंद्रीय विद्युत प्राधिकरण ने 2029-30 के लिए 336 गीगावाट-घंटा ऊर्जा भंडारण की आवश्यकता का अनुमान लगाया है।
- However, as of **September 2025**, **only 500 MWh of battery energy storage capacity** is operational.
लेकिन सितंबर 2025 तक केवल 500 मेगावाट-घंटा बैटरी ऊर्जा भंडारण क्षमता ही चालू हो पाई है।
- Government-driven programmes such as the **National Solar Mission, Solar Parks Scheme, UDAY, PM-KUSUM**, and **rooftop solar** have successfully added **25 GW of renewable energy every year**.
राष्ट्रीय सौर मिशन, सोलर पार्क योजना, उदय, पीएम-कुसुम और रूफटॉप सोलर जैसी सरकारी योजनाओं ने हर वर्ष 25 गीगावाट नवीकरणीय ऊर्जा जोड़ी है।
- However, **execution challenges** remain, including **grid connectivity delays** and **limited land acquisition** in the power sector.
फिर भी कार्यान्वयन की चुनौतियाँ बनी हुई हैं, जिनमें ग्रिड कनेक्टिविटी में देरी और बिजली क्षेत्र में सीमित भूमि अधिग्रहण शामिल हैं।
- Although the pace of renewable energy growth has reached a **groundbreaking level**, India's power system backbone remains the **253 GW of coal-based capacity**.
यद्यपि नवीकरणीय ऊर्जा की वृद्धि की गति ऐतिहासिक स्तर तक पहुँच चुकी है, फिर भी भारत की बिजली व्यवस्था की रीढ़ अब भी 253 गीगावाट की कोयला-आधारित क्षमता ही बनी हुई है।

Carbon sequestration target and forest policy realities कार्बन अवशोषण लक्ष्य और वन नीति की वास्तविकताएँ

- The figure of **2.5–3.0 billion tonnes of CO2 equivalent carbon sequestration by 2030**, as pledged by India, appears achievable in terms of numbers.
भारत द्वारा किए गए वादे के अनुसार 2030 तक 2.5–3.0 अरब टन CO2 समतुल्य कार्बन अवशोषण का लक्ष्य आँकड़ों के स्तर पर हासिल किया जा सकने वाला प्रतीत होता है।
- The **India State of Forest Report 2023** reveals that India has already sequestered **30.43 billion tonnes of CO2 equivalents** of total carbon stock.



इंडिया स्टेट ऑफ फॉरेस्ट रिपोर्ट 2023 बताती है कि भारत पहले ही कुल 30.43 अरब टन CO2 समतुल्य कार्बन भंडार का अवशोषण कर चुका है।

- This represents **2.29 billion tonnes of additional sequestration** over the **2005 level**, with only **0.2 billion tonnes** remaining to achieve the target by **2030**.
यह **2005 के स्तर** की तुलना में **2.29 अरब टन अतिरिक्त अवशोषण** को दर्शाता है और **2030 तक लक्ष्य** पाने के लिए केवल **0.2 अरब टन** शेष रह जाता है।
- However, the **official figures** do not capture the **definition's elasticity**.
हालाँकि, **आधिकारिक आँकड़े** परिभाषा की **लचीलेपन वाली व्याख्या** को नहीं दर्शाते हैं।
- The **Forest Survey of India's definition of forest cover** includes any land of more than **one hectare with 10% canopy**, including **eucalyptus monocultures, mango and tea plantations, and roadside trees**, in addition to natural forests.
फॉरेस्ट सर्वे ऑफ इंडिया की वन आवरण की परिभाषा में **एक हेक्टेयर से अधिक भूमि** जिस पर **10% छात्रावरण** हो, शामिल है, जिसमें **प्राकृतिक वनों के साथ-साथ यूकेलिप्टस के एकल-वृक्षारोपण, आम और चाय के बागान तथा सड़क किनारे के पेड़** भी गिने जाते हैं।
- **Satellite imagery shows 7,15,343 sq km of forest cover in 2023**, with an increase of only **156 sq km** from **2021**, which blurs ecological performance with administrative designation.
उपग्रह चित्रण के अनुसार 2023 में 7,15,343 वर्ग किमी वन आवरण था, जिसमें **2021 की तुलना में केवल 156 वर्ग किमी** की वृद्धि हुई, जो **पारिस्थितिक प्रदर्शन को प्रशासनिक वर्गीकरण से मिला देता है**।
- Policy mechanisms indicate **friction in implementation**.
नीति तंत्र **कार्यान्वयन में घर्षण** की ओर संकेत करते हैं।
- Under the **Compensatory Afforestation Fund Act (2016)**, about **₹95,000 crore** has been accumulated.
प्रतिपूरक वनीकरण कोष अधिनियम (2016) के तहत लगभग **₹95,000 करोड़** एकत्रित किए गए हैं।
- However, there is **unequal utilisation**, as States like **Delhi** have been able to use only **23%** of the allocated amount from **2019–20 to 2023–24**.
लेकिन **असमान उपयोग** देखने को मिलता है, क्योंकि **दिल्ली** जैसे राज्य **2019–20 से 2023–24** के बीच आवंटित राशि का केवल **23%** ही उपयोग कर पाए हैं।
- The **Green India Mission Revised**, launched in **June 2025** after a decade of **moderate progress**, proposes regenerating **five million hectares** through regional projects in the **Aravallis, Western Ghats, and Himalayas**.
ग्रीन इंडिया मिशन संशोधित, जिसे **जून 2025** में एक दशक की **मध्यम प्रगति** के बाद शुरू किया गया, **अरावली, पश्चिमी घाट और हिमालय** में क्षेत्रीय परियोजनाओं के माध्यम से **पचास लाख हेक्टेयर** भूमि के पुनर्जनन का प्रस्ताव करता है।
- Yet, **plantations** are often equated with **natural regeneration**.
फिर भी, **वृक्षारोपण** को अक्सर **प्राकृतिक पुनर्जनन** के समान मान लिया जाता है।
- Moreover, **climate change** adds further stress.
इसके अलावा, **जलवायु परिवर्तन** अतिरिक्त दबाव पैदा करता है।
- While satellite evidence indicates **greening, net primary productivity** and actual **carbon assimilation rates** are challenged by **warming and water stress**, especially in the **Western Ghats and northeastern India**.
हालाँकि उपग्रह प्रमाण **हरितीकरण** दिखाते हैं, लेकिन **शुद्ध प्राथमिक उत्पादकता** और वास्तविक **कार्बन आत्मसात दर** पर **ताप वृद्धि और जल तनाव** का नकारात्मक प्रभाव पड़ रहा है, विशेष रूप से **पश्चिमी घाट और पूर्वोत्तर भारत** में।
- India is likely to meet its **forest sink target by 2030** through mechanisms that are **plantation-dominated and governance-limited**, prioritising **carbon accounting over ecological restoration**.
भारत संभवतः **2030 तक अपना 'फॉरेस्ट सिंक' लक्ष्य** ऐसे तंत्रों के माध्यम से पूरा करेगा जो **वृक्षारोपण-प्रधान और सीमित शासन क्षमता** वाले होंगे, जहाँ **पारिस्थितिक पुनर्स्थापन** की बजाय **कार्बन लेखांकन** को प्राथमिकता दी जाएगी।

The road ahead आगे की राह

- While India has achieved meaningful **progress** on specific metrics, they also obscure fundamental problems with **climate action** in India.



हालाँकि भारत ने कुछ विशिष्ट मानकों पर उल्लेखनीय प्रगति की है, फिर भी ये भारत में जलवायु कार्रवाई की बुनियादी समस्याओं को छिपा देती हैं।

- The **intensity gains** achieved coexist with rising **absolute emissions**, and renewable capacity expansion has not translated into a proportional share of **generation** due to the entrenched **baseload of coal** that masks the actual ecological impact.
प्राप्त हुई उत्सर्जन तीव्रता में कमी बढ़ते कुल उत्सर्जन के साथ-साथ चल रही है, और नवीकरणीय क्षमता का विस्तार कोयले के जमे हुए बेसलोड के कारण बिजली उत्पादन में समानुपातिक हिस्सेदारी में नहीं बदल पाया है, जिससे वास्तविक पारिस्थितिक प्रभाव छिप जाता है।
- The transition path that lies ahead demands sustained **effort** in areas requiring **systemic coordination** and **coordinated governance**, such as the rapid scaling of **battery storage** to bridge the capacity–generation gap, the development of a **coal transition roadmap**, reformed **forest governance** to ensure quality **biodiversity outcomes** alongside carbon target numbers, and increased **data transparency** to track progress across sectoral and regional variations, as mere **technology** and **capital inflow** will now no longer suffice.
आगे की संक्रमण प्रक्रिया के लिए ऐसे क्षेत्रों में निरंतर प्रयास की आवश्यकता है जिनमें प्रणालीगत समन्वय और समन्वित शासन चाहिए, जैसे क्षमता–उत्पादन अंतर को पाटने के लिए बैटरी भंडारण का तेज़ विस्तार, कोयला संक्रमण रोडमैप का विकास, कार्बन लक्ष्यों के साथ-साथ बेहतर जैव-विविधता परिणामों के लिए वन शासन सुधार, और क्षेत्रीय व सेक्टरल प्रगति को मापने के लिए डेटा पारदर्शिता बढ़ाना, क्योंकि अब केवल तकनीक और पूंजी प्रवाह पर्याप्त नहीं रहेंगे।
- The upcoming **five years** present a critical window for India to accelerate **renewable energy growth**, resolve **storage bottlenecks**, and strengthen **government coordination** on grid connectivity and land acquisition.
आने वाले पाँच वर्ष भारत के लिए नवीकरणीय ऊर्जा वृद्धि को तेज़ करने, भंडारण बाधाओं को दूर करने और ग्रिड कनेक्टिविटी व भूमि अधिग्रहण पर सरकारी समन्वय मजबूत करने का एक महत्वपूर्ण अवसर प्रस्तुत करते हैं।
- In summation, India's **performative standards** may have broadly delivered on its **quantified commitments**.
संक्षेप में, भारत के प्रदर्शन-आधारित मानक मोटे तौर पर उसके मात्रात्मक वादों को पूरा करते दिखाई देते हैं।
- Still, the outcomes that matter most lie beyond **headline metrics**, in converting the now installed capacity into **sustained generation** and intensity gains into absolute emission **moderation**.
फिर भी, सबसे महत्वपूर्ण परिणाम शीर्षक आँकड़ों से आगे हैं, अर्थात् स्थापित क्षमता को निरंतर उत्पादन में बदलना और उत्सर्जन तीव्रता में आई कमी को कुल उत्सर्जन के नियंत्रण में रूपांतरित करना।

GS Paper III: IS	
TOPICS COVERED	08 January 2026
1.	'Natgrid', the search engine of digital authoritarianism 'नेटग्रिड', डिजिटल सत्तावाद का सर्च इंजन



'Natgrid', the search engine of digital authoritarianism

IGS III: Internal Security

We tend to quantify the tragedy of the terror attack in Mumbai in November 2008, by the over 160 lives lost. "26/11" was beamed into the living rooms of the country's elites for three days through broadcast television. The sounds of bullets and explosions, the dome of the Taj Hotel swallowed by smoke, and the valour of the Mumbai Police played out alongside a steady refrain in studios and by commentators of a "major intelligence failure". That charge was not conjured out of grief alone.

The report by the high-level inquiry committee on 26/11 and the material placed before Parliament pointed to lapses in the handling of intelligence alerts. This "intelligence failure", it was argued, was the inability to stitch scattered fragments into a coherent warning. David Coleman Headley, a key conspirator, travelled to India on several occasions, leaving a paper-and-pixel trail in visa applications, hotel registries and travel itineraries. Security hacks offered a seductive proposition. Would the lives lost been saved had those disparate data points been aggregated and analysed in time?

Evolution of a 'crown jewel'

Out of that psychological aftershock emerged institutional expansions, but the technological crown jewel was the National Intelligence Grid (NATGRID). Its premise was a middleware interface that would allow 11 specified central agencies to query databases across 21 categories, routed through provider organisations spanning identity and assets, travel and movement, financial intelligence and telecommunications.

Even in its early days, the unease was visible. NATGRID was first publicly announced on December 23, 2009, in a speech by the Home Minister.

The constitutional question that arose immediately was not whether the state may ever conduct surveillance, but on whether a project of this magnitude could operate without a statutory framework and independent oversight. This daily reported on February 10, 2010 ("Big Brother" fears stall Chidambaram data plan) that "Ministers raised queries about safeguards and said there was a need for further study". Yet, on June 14, 2012, NATGRID was cleared not through an Act of Parliament, but by executive order and the Cabinet Committee on Security, with a first-phase allocation of ₹1,002.97 crore branded "Horizon-1".

For years, NATGRID's constant delays led people to believe it was 'vaporware'. A project that existed on paper but did not actually work as a massive search engine for tracking citizens that was only announced to calm public anger after



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the 26/11 attacks. Well, it is now becoming a reality that can no longer be ignored.

Two recent reports in this daily ("National intelligence grid gains traction as Central agencies, police scour for information", December 8, 2025 and "Intel grid linked to NPR with details of 119 crore residents", December 26, 2025) reveal a quantitative and qualitative expansion of this mass surveillance project. First, following a national conference of Directors General of Police in Raipur in late November 2025, chaired by the Prime Minister, States were asked to "scale up" NATGRID usage. The first report also said that NATGRID receives around 45,000 requests every month. Worse, access, once presented as the preserve of central intelligence and investigative agencies, is being widened to police units, including officers down to the rank of Superintendent of Police.

An integration that unsettles

The second development that is even more unsettling is the reported integration of NATGRID with the National Population Register (NPR). The NPR is a repository with the details of 1.19 billion residents, with a relational cartography of households, lineages and identities. It is also politically volatile, repeatedly invoked in the acrimony surrounding the National Register of Citizens (NRC) as a prelude to citizenship filtering. Grafting a population register onto an intelligence query platform crosses a fundamental boundary. It shifts the paradigm from tracking discrete events as intelligence inputs to the mapping every Indian. NATGRID's evolution is not unfolding in the technological climate of 26/11, but in 2025, amid rapid advances in machine learning and large-scale analytics.

This daily has also highlighted the deployment of "Gandiva", an analytical engine capable of "entity resolution".

This is further explained as providing the triangulation that is required to decide whether fragmented records belong to the same individual. Paired with facial recognition that can trawl telecom Know Your Customer (KYC) databases and driving-licence records, this is no longer the state's "search bar". It is inference at scale and changes the nature of the risk. Here, intentions are subjectively determined by an algorithm.

Two features make this qualitatively different from older surveillance debates. First, the spectre of bias. Algorithms do not merely excavate truth but reproduce distortions embedded in the data they ingest and claim that they are objective determinations based on pattern recognition. If policing is already skewed by caste, religion or geography, analytics will harden those inequities

and cloak them in an aura of objectivity. For the affluent, a false positive is an administrative nuisance. For a young Muslim man in a small town, already living under a pall of suspicion, an automated "hit" can trigger an ordeal and misidentification may carry a blood price.

Second, the tyranny of scale. The danger of modern analytics is not omniscience, but ubiquity. NATGRID reportedly classifies queries by sensitivity, and officials maintain that every access is logged and justified. Without independent scrutiny, these are facial safeguards. When tens of thousands of requests are processed each month, logging risks becoming a clerical ritual particularly in the absence of autonomous oversight, which is lacking even at the level of Parliament.

The lack of course correction

Defenders will fall back on the familiar claim that NATGRID is a matter of life and death. But is it so once it has drifted from counter-terror into everyday policing? Intelligence failures are rarely born of data droughts alone. They are more often the products of institutional weakness, perverse incentives and the rot of unaccountability – as we learned in 26/11 where the local police had not conducted any firearms training for over a year.

Tragically, a correction seems distant. Our constitutional courts have lapsed into deep slumber, allowing the expansive privacy doctrine in *Justice K.S. Puttaswamy (Retd.) & Anr. vs. Union of India & Ors.* (2017) to gather dust while the surveillance state expands. The legality of intelligence programmes that lack any clear statutory foundation or meaningful oversight has not been squarely adjudicated, despite multiple pending cases. In place of scrutiny, we have a martial public temper fanned by political rhetoric and cultural moulding, including mainstream cinema, that treats questioning the security establishment as heresy. The result is a near silence about accountability for acts of terrorism such as the New Delhi bombing of November 10, 2025, and the heartbreaking loss of 15 lives. Is it impolite to ask whether there was an "intelligence failure" even with NATGRID in place?

The shock of 26/11 continues to haunt us, but we have mistaken the remedy. If we genuinely care about prevention, we need professional investigation insulated from political whims, transparency about intelligence lapses, and oversight vested within the parliamentary and the judiciary. Without these, NATGRID is an architecture of suspicion, built in the name of safety and normalised through fear, but functioning in the service of digital authoritarianism.

The shock of 26/11 continues to haunt India, but the remedy – the National Intelligence Grid – is cause for deep concern

'Natgrid', the search engine of digital authoritarianism

'नेटग्रिड', डिजिटल सत्तावाद का सर्च इंजन

- We tend to quantify the tragedy of the **terror attack in Mumbai in November 2008** by the over **160 lives lost**.
हम नवंबर 2008 में हुए मुंबई आतंकी हमले की त्रासदी को अक्सर 160 से अधिक जानों की हानि के रूप में आँकते हैं।
- The report by the **high-level inquiry committee on 26/11** and the material placed before **Parliament** pointed to **lapses in the handling of intelligence alerts**.
26/11 पर बनी उच्च स्तरीय जाँच समिति की रिपोर्ट और संसद के समक्ष रखी गई सामग्री ने खुफिया चेतावनियों के प्रबंधन में चूक की ओर इशारा किया।
- This "**intelligence failure**", it was argued, was the **inability to stitch scattered fragments into a coherent warning**.
यह "खुफिया विफलता" दरअसल बिखरे हुए टुकड़ों को जोड़कर एक सुसंगत चेतावनी बनाने में असमर्थता थी।



- **David Coleman Headley**, a key conspirator, travelled to India on **several occasions**, leaving a **paper-and-pixel trail** in visa applications, hotel registries and travel itineraries.
मुख्य साज़िशकर्ता **डेविड कोलमैन हेडली** ने **कई बार** भारत की यात्रा की, और वीज़ा आवेदनों, होटल रजिस्ट्रों तथा यात्रा कार्यक्रमों में एक **कागज़ी और डिजिटल निशान** छोड़ा।
- Security hawks offered a **seductive proposition**.
सुरक्षा विशेषज्ञों ने एक **आकर्षक प्रस्ताव** रखा।
- Would the lives lost been saved had those **disparate data points** been **aggregated and analysed in time**?
क्या वे जानें बच सकती थीं, यदि उन **बिखरे हुए आँकड़ों** को समय रहते **जोड़ा और विश्लेषित** किया गया होता?

Evolution of a 'crown jewel' एक 'मुकुट रत्न' का विकास

- Out of that psychological aftershock emerged **institutional expansions**, but the technological **crown jewel** was the **National Intelligence Grid (NATGRID)**.
उस मानसिक झटके से **संस्थागत विस्तार** तो हुए, लेकिन तकनीकी **मुकुट रत्न** बना **नेशनल इंटेलिजेंस ग्रिड (NATGRID)**।
- Its premise was a **middleware interface** that would allow **11 specified central agencies** to query databases across **21 categories**, routed through provider organisations spanning **identity and assets, travel and movement, financial intelligence and telecommunications**.
इसकी अवधारणा एक **मिडलवेयर इंटरफ़ेस** की थी, जो **11 निर्दिष्ट केंद्रीय एजेंसियों** को **21 श्रेणियों** के डेटाबेस तक पहुँच देगा, जिनमें **पहचान और संपत्ति, यात्रा और आवागमन, वित्तीय खुफिया जानकारी और दूरसंचार** शामिल हैं।
- Even in its early days, the **unease** was visible.
इसके शुरुआती दिनों में ही **बेचैनी** साफ़ दिखने लगी थी।
- NATGRID was first publicly announced on **December 23, 2009**, in a speech by the **Home Minister**.
NATGRID की पहली सार्वजनिक घोषणा **23 दिसंबर 2009** को **गृह मंत्री** के एक भाषण में हुई थी।
- The constitutional question that arose immediately was not whether the state may ever conduct **surveillance**, but on whether a project of this magnitude could operate **without a statutory framework and independent oversight**.
तुरंत उठने वाला संवैधानिक प्रश्न यह नहीं था कि राज्य कभी **निगरानी** कर सकता है या नहीं, बल्कि यह था कि इतना बड़ा प्रोजेक्ट क्या **कानूनी ढाँचे और स्वतंत्र निगरानी** के बिना चल सकता है।
- This daily reported on **February 10, 2010** (“**Big Brother**’ fears stall Chidambaram data plan”) that “**Ministers raised queries about safeguards and said there was a need for further study**”.
इस दैनिक ने **10 फरवरी 2010** को (“**बिग ब्रदर**’ के डर से चिदंबरम की डेटा योजना रुकी”) रिपोर्ट किया कि “**मंत्रियों ने सुरक्षा उपायों पर सवाल उठाए और आगे अध्ययन की ज़रूरत बताई**।”
- Yet, on **June 14, 2012**, NATGRID was cleared not through an **Act of Parliament**, but by **executive order** and the **Cabinet Committee on Security**, with a first-phase allocation of **₹1,002.97 crore** branded “**Horizon-1**”.
फिर भी, **14 जून 2012** को NATGRID को **संसद के अधिनियम** से नहीं, बल्कि **कार्यकारी आदेश** और **कैबिनेट कमेटी ऑन सिक्योरिटी** के ज़रिये मंजूरी मिली, जिसमें पहले चरण के लिए **₹1,002.97 करोड़** “**होराइज़न-1**” के नाम से आवंटित किए गए।
- For years, NATGRID’s constant **delays** led people to believe it was ‘**vaporware**’.
कई वर्षों तक NATGRID की लगातार **देरी** ने लोगों को यह मानने पर मजबूर कर दिया कि यह केवल ‘**वाष्पीय परियोजना**’ है।
- A project that existed **on paper** but did not actually work as a **massive search engine for tracking citizens** that was only announced to calm public anger after the **26/11 attacks**.
एक ऐसा प्रोजेक्ट जो केवल **कागज़ों पर** था, नागरिकों पर नज़र रखने वाले किसी **विशाल खोज इंजन** की तरह वास्तव में काम नहीं करता था, और जिसे **26/11 हमलों** के बाद जनता के गुस्से को शांत करने के लिए घोषित किया गया था।



- Well, it is now becoming a **reality** that can no longer be **ignored**.
अब यह एक ऐसी **हकीकत** बनता जा रहा है जिसे और **नज़रअंदाज़** नहीं किया जा सकता।
- Two recent reports in this daily (“**National intelligence grid gains traction as Central agencies, police scour for information**”, December 8, 2025 and “**Intel grid linked to NPR with details of 119 crore residents**”, December 26, 2025) reveal a **quantitative and qualitative expansion** of this **mass surveillance project**.
इस दैनिक की दो हालिया रिपोर्टें (“**केंद्रीय एजेंसियाँ और पुलिस जानकारी के लिए NATGRID का बढ़ता उपयोग**”, 8 दिसंबर 2025 और “**119 करोड़ निवासियों के विवरण के साथ NPR से जुड़ा इंटेल ग्रीड**”, 26 दिसंबर 2025) इस **जन-निगरानी परियोजना** के **संख्यात्मक और गुणात्मक विस्तार** को उजागर करती हैं।
- First, following a **national conference of Directors General of Police in Raipur** in late **November 2025**, chaired by the **Prime Minister**, States were asked to “**scale up**” NATGRID usage.
पहला, **नवंबर 2025** के अंत में **रायपुर** में **प्रधानमंत्री** की अध्यक्षता में हुई **पुलिस महानिदेशकों की राष्ट्रीय सम्मेलन** के बाद, राज्यों से NATGRID के उपयोग को “**बढ़ाने**” को कहा गया।
- The first report also said that NATGRID receives around **45,000 requests every month**.
पहली रिपोर्ट में यह भी कहा गया कि NATGRID को हर महीने लगभग **45,000 अनुरोध** मिलते हैं।
- Worse, access, once presented as the preserve of **central intelligence and investigative agencies**, is being widened to **police units**, including officers down to the rank of **Superintendent of Police**.
और भी चिंताजनक यह है कि जो पहुँच पहले केवल **केंद्रीय खुफिया और जाँच एजेंसियों** तक सीमित बताई जाती थी, अब उसे **पुलिस इकाइयों** तक बढ़ाया जा रहा है, जिनमें **पुलिस अधीक्षक** स्तर तक के अधिकारी भी शामिल हैं।

An integration that unsettles अस्थिर करने वाला एकीकरण

- The **second development that is even more unsettling** is the reported **integration of NATGRID with the National Population Register (NPR)**.
दूसरा घटनाक्रम, जो और भी अधिक चिंताजनक है, वह **NATGRID का राष्ट्रीय जनसंख्या रजिस्टर (NPR)** के साथ कथित **एकीकरण** है।
- The **NPR is a repository with the details of 1.19 billion residents**, with a relational cartography of **households, lineages and identities**.
- This daily has also highlighted the deployment of “**Gandiva**”, an analytical engine capable of “**entity resolution**”.
इस दैनिक ने “**गांडीव**” नामक **विश्लेषणात्मक इंजन** की तैनाती को भी उजागर किया है, जो “**एंटीटी रेज़ोल्यूशन**” में सक्षम है।
- This is further explained as providing the **triangulation** that is required to decide whether **fragmented records** belong to the **same individual**.
इसे आगे इस रूप में समझाया गया है कि यह वह **त्रिकोणीकरण** प्रदान करता है, जिससे यह तय किया जा सके कि **बिखरे रिकॉर्ड एक ही व्यक्ति** के हैं या नहीं।
- Paired with **facial recognition that can trawl telecom Know Your Customer (KYC) databases and driving-licence records**, this is no longer the state’s “**search bar**”.
फेशियल रिकग्निशन के साथ मिलकर, जो **टेलीकॉम KYC डेटाबेस और ड्राइविंग लाइसेंस रिकॉर्ड** खंगाल सकता है, यह अब केवल राज्य का “**सर्च बार**” नहीं रह गया है।
- It is **inference at scale** and changes the **nature of the risk**.
यह **बड़े पैमाने पर निष्कर्ष निकालने** की प्रक्रिया है और इससे **जोखिम की प्रकृति** बदल जाती है।
- Here, **intentions** are subjectively determined by an **algorithm**.
यहाँ **इरादों** का निर्धारण एक **एल्गोरिदम** द्वारा व्यक्तिपरक रूप से किया जाता है।
- Two features make this **qualitatively different** from older surveillance debates.
दो विशेषताएँ इसे पुराने निगरानी-विवादों से **गुणात्मक रूप से अलग** बनाती हैं।
- First, the spectre of **bias**.
पहला, **पक्षपात** का भूत।
- Intelligence failures are rarely born of data droughts alone**.
खुफिया विफलताएँ शायद ही कभी केवल डेटा की कमी से पैदा होती हैं।



- They are more often the products of **institutional weakness, perverse incentives** and the rot of **unaccountability** — as we learned in **26/11** where the local police had not conducted any **firearms training** for over a year.
वे ज़्यादातर **संस्थागत कमजोरी, विकृत प्रोत्साहनों और जवाबदेही के क्षरण** का परिणाम होती हैं — जैसा कि हमने **26/11** में देखा, जब स्थानीय पुलिस ने एक वर्ष से अधिक समय तक कोई **आग्नेयास्त्र प्रशिक्षण** नहीं किया था।
- Our **constitutional courts** have lapsed into deep **slumber**, allowing the expansive **privacy doctrine** in **Justice K.S. Puttaswamy (Retd.) & Anr. vs. Union of India & Ors. (2017)** to gather dust while the **surveillance state** expands.
हमारे **संवैधानिक न्यायालय** गहरी निद्रा में चले गए हैं, जिससे **जस्टिस के.एस. पुट्टस्वामी (सेवानिवृत्त) एवं अन्य बनाम भारत संघ एवं अन्य (2017)** में प्रतिपादित व्यापक **निजता सिद्धांत** धूल खाता रहा, जबकि **निगरानी राज्य** फैलता गया।
- The **legality of intelligence programmes that lack any clear statutory foundation or meaningful oversight** has not been squarely adjudicated, despite multiple **pending cases**.
जिन **खुफिया कार्यक्रमों** के पास कोई स्पष्ट **वैधानिक आधार** या सार्थक **निगरानी** नहीं है, उनकी वैधता पर कई **लंबित मामलों** के बावजूद अब तक स्पष्ट निर्णय नहीं हुआ है।
- In place of scrutiny, we have a **martial public temper** fanned by **political rhetoric** and **cultural moulding**, including **mainstream cinema**, that treats questioning the **security establishment** as heresy.
जाँच-पड़ताल की जगह हमारे पास **राजनीतिक बयानबाज़ी** और **सांस्कृतिक ढाँचे**, जिसमें **मुख्यधारा की सिनेमा** भी शामिल है, से भड़का हुआ एक **आक्रामक सार्वजनिक स्वभाव** है, जो **सुरक्षा तंत्र** पर सवाल उठाने को पाखंड मानता है।
- The result is a near **silence** about accountability for acts of terrorism such as the **New Delhi bombing of November 10, 2025**, and the heartbreaking loss of **15 lives**.
इसका परिणाम यह हुआ है कि **10 नवंबर 2025** के **नई दिल्ली बम विस्फोट** जैसे आतंकी कृत्यों और **15 जानों** के दिल दहला देने वाले नुकसान पर जवाबदेही को लेकर लगभग **चुप्पी** छा गई है।
- Is it impolite to ask whether there was an “**intelligence failure**” even with **NATGRID** in place?
क्या यह असभ्य है कि हम पूछें कि **NATGRID** होने के बावजूद क्या कोई “**खुफिया विफलता**” हुई थी?
- The shock of **26/11** continues to haunt us, but we have **mistaken the remedy**.
26/11 का झटका आज भी हमें सताता है, लेकिन हमने **इलाज को गलत समझ लिया है**।
- If we genuinely care about **prevention**, we need **professional investigation** insulated from **political whims**, **transparency** about intelligence lapses, and **oversight** vested within the **parliamentary** and the **judiciary**.
यदि हमें सचमुच **रोकथाम** की चिंता है, तो हमें **राजनीतिक इच्छाओं** से मुक्त **पेशेवर जाँच**, खुफिया चूकों पर **पारदर्शिता**, और **संसदीय व न्यायिक** निगरानी की आवश्यकता है।
- Without these, **NATGRID** is an **architecture of suspicion**, built in the name of **safety** and normalised through **fear**, but functioning in the service of **digital authoritarianism**.
इनके बिना, **NATGRID** केवल **संदेह की एक संरचना** है, जिसे **सुरक्षा** के नाम पर खड़ा किया गया और **डर** के ज़रिये सामान्य बनाया गया, लेकिन जो अंततः **डिजिटल सत्तावाद** की सेवा में काम करता है।